RETRO GAMER*

OLD!

COMMODORE SEGA NINTENDO ATARI SINCLAIR ARCADE

RETRO* GAMER

VOLUME TWO ISSUE SIX

The Last Ninja Story



>SYNTAX ERROR!

>MISSING COVERDISC?

<CONSULT NEWSAGENT>



RETRO* GAMER

Atari Lynx



Power in the palm of your hand



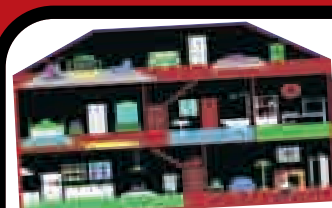
Ocean's Robocop

I'd buy that for a dollar!

Bombs Away!



Bomberman blasts back



Little Computer People

Creator David Crane interviewed

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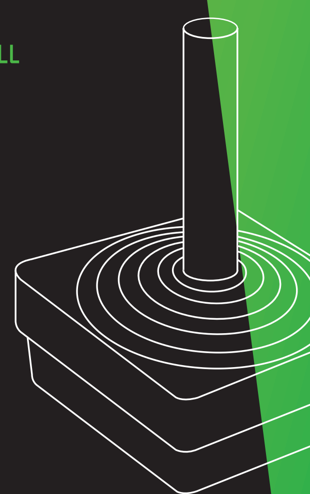
hello



Welcome to another feature-packed issue of *Retro Gamer*. I'd like to start this issue by pointing out our new subscriptions offer. Sign up today and you'll receive 12 issues of the magazine, plus the amazing new Commodore 64 plug-and-play joystick. If that looks like blatant self-advertising thinly disguised as editorial, then that's exactly what it is. Subscriptions really are the lifeblood of any magazine, and they keep *Retro Gamer* ticking along nicely, especially during the rather anaemic summer months. And just think, if you do subscribe, not only do you receive a year's worth of *RG* and the C64 DTV gizmo, but you're also first in line when it comes to exclusive giveaways, like this month's *Zzap!64* tribute magazine (see page 13 if you're not sure what I'm blabbering on about). What's more, we have similar promotions lined up over the coming months...

If you're already a subscriber, I thank ya kindly. Your continued support is always appreciated. Until next time.

MARTYN CARROLL
EDITOR



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RETRO NEWS

NEWS-OLA

Atari Flashes Back

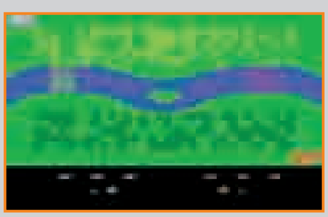
'Hackable' version 2.0 in the pipeline

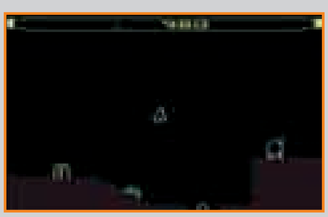


Following the less-than-stellar reception of the first Flashback TV game, Atari has gone back to its lucrative TV game lab and masterminded a successor. As you can see from the picture, Flashback 2 is going right back to the roots of the VCS with the classic woodgrain look and a couple of 2600-style sticks. It's already promising to be a huge improvement over the original Flashback, but what about the games?

This time around, Atari has answered earlier criticisms by including some classic third-party titles alongside its tried and trusted back catalogue. This makes perfect sense, as any 2600 celebration must surely include Activision's Pitfall and River Road. Both games make a welcome appearance along with 40 others, including several previously unreleased titles and a couple of hidden games that need to be unlocked (but there are no 7800 titled included this time around). The unit also throws in a few homebrew games, solidifying Atari's position within the all-important retro community.

This is starting to sound like the product we all wanted in the first place, and it doesn't end there. Atari has made it possible for people to use their old controllers with the unit – and, for all the hackers and homebrewers

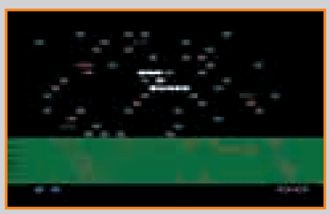






out there, you'll also be able to 'unlock' the Flashback 2, enabling the use of your own carts. Yes, this is true 2600 hardware and with a little resourceful hacking (and warranty voiding – you've been warned), you'll be able to play other games, including homebrew titles. This wasn't possible on the original Flashback as the hardware was emulated.

With such a promising line-up of games, and more than a few interesting hardware features, the Flashback 2 could be the perfect comeback for Atari. In fact, the unit has already won plenty of praise at this year's E3, so the future for this little box of tricks is looking very bright indeed. We'll have a full review of the Flashback 2 (and hopefully a hacking guide) when it's released in August.



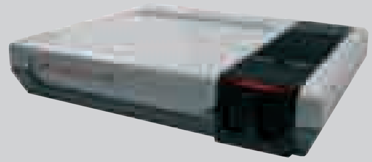


›The games...

- › 3D Tic-Tac-Toe
- › Adventure
- › Adventure II
- › Aquaventure
- › Arcade Asteroids
- › Arcade Pong
- › Asteroids Deluxe
- › Atari Climber
- › Caverns Of Mars
- › Centipede
- › Combat, Combat 2
- › Dodge'm
- › Fatal Run
- › Frog Pond
- › Hangman
- › Haunted House
- › Human Cannonball
- › Lunar Lander
- › Maze Craze
- › Millipede
- › Missile Command
- › Off the Wall
- › Outlaw
- › Pitfall
- › Quadrun
- › Radar Lock
- › Ret. To Haunted House
- › River Raid
- › Saboteur
- › Save Mary
- › Secret Quest
- › Space Duel
- › Space War
- › Thrust
- › Video Checkers
- › Video Chess
- › Wizard
- › Yars' Return
- › Yars' Revenge

Give us two minutes and we'll give you the retro world!

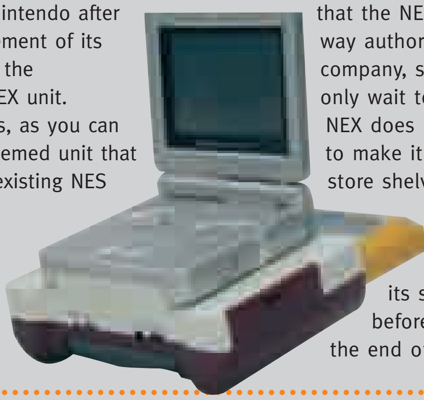
Messiah or Pariah?



Nintendo runs for the courts

Nintendo, not known for taking infringements on its properties lightly, is now eyeing up a new target – Messiah Entertainment. The US-based company, which specialises in 'bringing games back to life', has come under attack from Nintendo after the announcement of its new product, the Generation NEX unit.

The NEX is, as you can see, a NES-themed unit that supports all existing NES software and peripherals, including such items as the original NES light gun. To add to Nintendo's already potent anger, the unit is region-free to boot, meaning you can play any game from any country.



Nintendo representatives have already stated to the press that the NEX is in no way authorised by the company, so we can only wait to see if the NEX does manage to make it onto store shelves, or if Nintendo's jackboot stamps on its smirking face before it reaches the end of the production line (our money's on Mario). The Generation NEX is (currently) scheduled for a September release in the US for around US$59.99.

Coincidentally, another new Nintendo legacy device has surfaced lately, this time aimed at the GBA SP market. The Time Machine hails from US company Guru Gaming, and is a special adaptor that opens up the entire NES back catalogue for play on the GBA. By plugging your handheld into the unit you're able to play original NES games on the GBA itself, or you can output the video to a TV, much like the recent Pocketfami from Gametech.

Retro Reading

Brush up on your videogame history



We've received a couple of welcome additions to any retro gaming fan's library this month. First up is a book for anyone who enjoyed the first part of our Brief History of Videogames (*RG* issue 16). *Videogames in the Beginning* by Ralph H Baer (inventor of the first-ever analogue gaming device and general gaming history guru) is a fascinating look at how today's multi-billion dollar gaming industry began. In the book Ralph tells his own story and there's a collection of unique documents and technical drawings to accompany the text. Starting with the origins of the famous 'Brown Box', this is a recommended read for anyone interesting in the history of gaming.

We'd also like to mention an excellent reference book of gaming hardware and software in the form of *The Encyclopaedia of Game.Machines* by Winnie Forster. Covering everything from 1972 to the present day, the book includes brief looks at all the major platforms and their games. Everything from the Magnavox Odyssey and ZX81 to the Xbox and PSP is covered, all in informative and attractive sections. There's also information on game media types and a look at the birth of gaming. The book is currently available from selected outlets, with the official UK launch taking place at this year's CGEUK.

Feel the Rage!

Hidden gems revealed

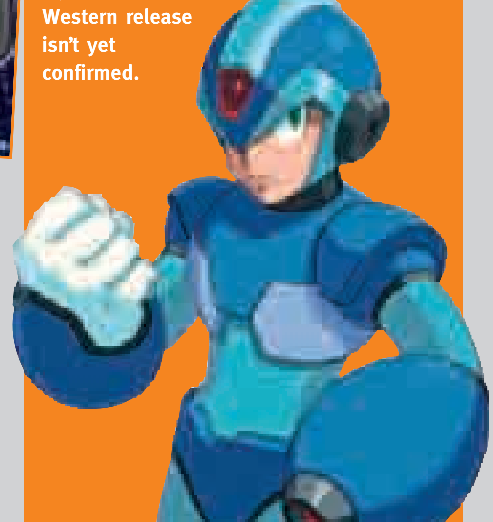
Last issue we came back from the hustle and bustle of E3 with news of Sega's latest retro release: Sonic Gems Collection. Made up of classic Sonic titles, the collection was looking great – and now it's even more appealing, as it's believed that it will also feature a few non-Sonic Mega Drive titles. The extra games will come in the form of the legendary Streets of Rage trilogy, as well as the rather bizarre inclusion of Bonanza Bros. Sega has yet to make an official comment on the news, but we expect more details very soon.



Capcom Hits PSP

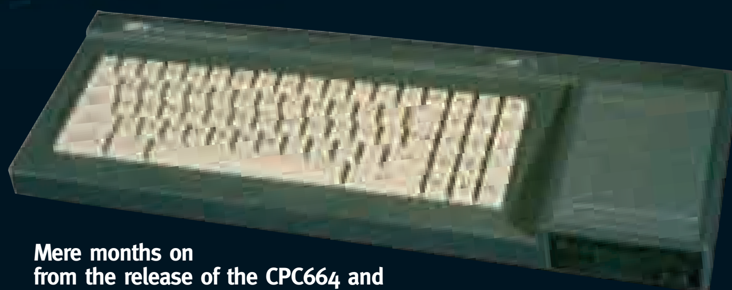
More PSP retro action on the way

Capcom has recently announced two re-release titles for the Sony PSP. Mega Man 64 (Rockman Dash Hagane no Boukrnship in Japan) is a conversion of the 2001 N64 title, which is in turn a reworking of the original 1998 PSOne game Mega Man Legends. The second title is the classic Capcom RPG Breath of Fire 3, which first came out on the PSOne in 1997. Both titles are slated for an August release in Japan, though a Western release isn't yet confirmed.



BACK TO THE EIGHTIES

More woes for Acorn and Sinclair, joy for FAST and Minter gets Zzapped. Welcome to July 1985…



Mere months on from the release of the CPC664 and Sir Alan was readying the launch of its successor, the business-orientated 6128

The continuing commotion over Sinclair Research – and the potential takeover by Robert Maxwell – rumbled on. With Sinclair still losing money hand over fist, the need for a takeover was becoming more and more urgent.

With a lack of clarity regarding what exactly had been proposed, as well as Sir Clive's potential position within the new company's structure, things looked extremely ambiguous and clouded. The latest development was that Sir Clive would apparently not be an employee of Sinclair Research but would remain in charge of the company's research and development department through the creation of a new company designed specifically with these tasks in mind.



Was Sir Clive about to bid farewell to the home computing industry he helped shape?

Worryingly for Sinclair Research were reports in several newspapers that the prospective deal could be wavering and on the point of collapse. This was countered by a Sinclair company spokesman who insisted the takeover should be done and dusted within the next two or three months. We shall see…

If that wasn't enough, there was yet more woe for the slap-headed genius when the makers of Sinclair's C5 fleet, Hoover, announced it had taken out a writ for non-payment of £1.5 million in outstanding debts from Sinclair Vehicles. But Hoover was playing the waiting game as it hadn't actually served the writ and was simply making its existence known as a way of pressurising Sinclair into action. In response, Sir Clive placed his fingers in his ears and shouted, "la la la," commenting that until the writ was officially served it effectively didn't exist. Things were looking murkier by the month for the once-great hardware developer.

Not to be outdone in the impending company meltdown sweepstakes, Acorn also had another bad month. It once again had to call in Olivetti and the merchant bankers to hopefully concoct another rescue package just a few months after the last one. The big question was would Olivetti want to throw more money at Acorn by taking a bigger piece of the company, or walk away from the £10 million it had already injected into the company?

Meanwhile, British Telecom, owner of the Firebird and Rainbird software labels, was believed to be in negotiations with Acorn with a view to a possible takeover of its software subsidiary Acornsoft. With Acorn looking to raise money any way it could, selling off this and other subsidiaries seemed to be a likely course of action. More Acorn-based drama next month…

On a more successful note, Amstrad revealed it was planning to release its CPC6128 in the UK in the autumn. Initially, it was set to be a US-only release with the UK being introduced to the enhanced CPC some time next year. Although on appearance this was a good move for Amstrad, it was sure to rankle those who who'd just splashed out on a new CPC664.

Yak attack

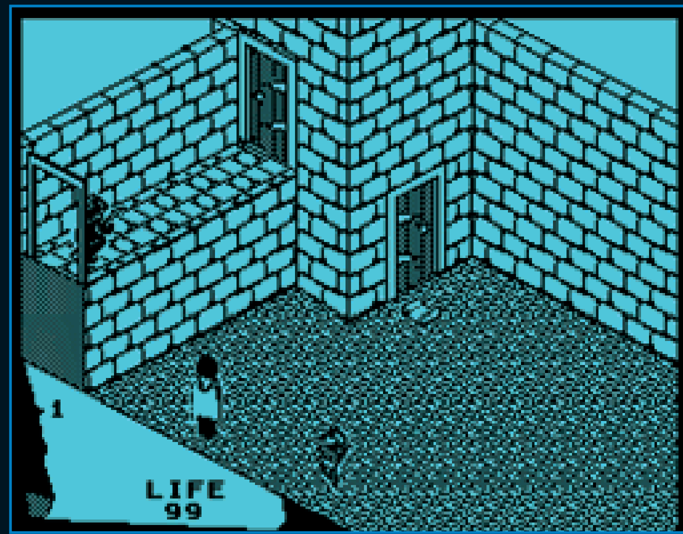
An interesting development this month was the beginnings of a rift between *Zzap!64* and regular columnist Jeff Minter. In one of Minter's Llamasoft newsletters he wrote several unflattering

›Ahoy pirates!

The Federation Against Software Theft (FAST) and Guild Of Software Houses (GOSH) were very happy bunnies this month after a new law was passed.

The Copyright (Computer Software) Amendment Bill extended the copyright law to computer software and anyone caught pirating software could be hit with a £1,000 fine per title and even a spell in the big house. OK, so this was aimed more at the high-volume professional pirates rather than little Johnny in the playground – though FAST still intend to hunt you down too. They haven't forgotten you copying Brian Bloodaxe for your mate Dave…





Nightshade (left) and Fairlight were to slug it out as the best-looking isometric adventure on the Spectrum

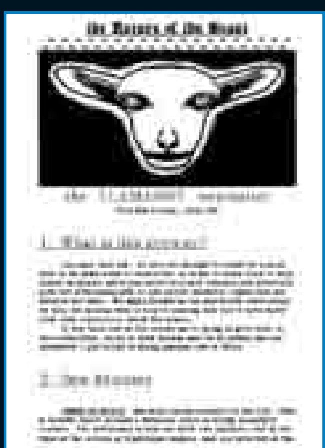
comments about the magazine that was paying him money to write a column.

Some of the venomous remarks aimed at *Zzap* included: "Reviews reading like they were written by 12-year-olds for 12-year-olds," and, "They do rather come across as the sort of people who are so amazingly primitive," all topped off with, "Take the reviews with a pinch of salt (the reviewers are mutant)." Squat down, man, it's a free festival, peace and love… we don't think…

This irritation and displeasure on Minter's part seems to have been born from the less-than-enthusiastic review of his latest software creation, Mama Llama, which received a lukewarm response in the first issue of *Zzap*, scoring 59%. Needless to say, the Minter column in *Zzap* didn't last too much longer.

Another pairing to put up a good fight were Ultimate and The Edge. Both companies were promising revolutionary new graphics systems that would blow each other out of the water. To be fair, it was the computer press hyping and comparing the two graphics engines, but the anticipation was starting to mount.

Ultimate had just developed the Filmation II system in readiness for its next release, Nightshade, whilst The Edge had its 3D Worldmaker graphics engine for the impending release of Bo Jangeborg's Fairlight. Let battle commence!

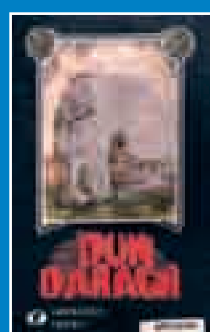


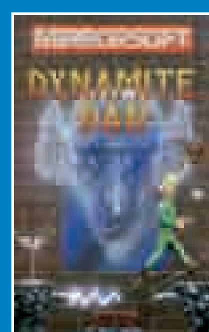
Minter ripped into *Zzap!64* in his *Nature of the Beast* newsletter

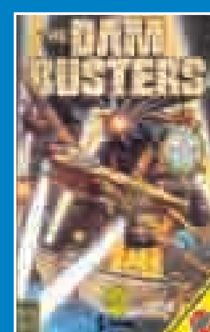
›Games watch

Crash magazine's roll-call of game reviews included five classics this month. Tir Na Nog follow-up, Dun Darach (Gargoyle Games), topped the percentage charts with a mammoth 97%, while Dynamite Dan (Mirrorsoft), Cauldron (Palace Software), Herbert's Dummy Run (Mikro-Gen) and The Bulge: Battle For Antwerp (Lothlorien) all grabbed Crash Smashes.

On the flip side in Commodore land, sister magazine *Zzap!64* had not one but two Gold Medal winners with a sprinkling of Sizzlers as a pleasant gaming garnish. Archer Maclean's mighty Dropzone (US Gold) and Entombed (Ultimate) bagged the Gold Medals whilst the Sizzlers went to Rockford's Riot (Monolith), Kikstart (Mastertronic), The Dam Busters (US Gold), Strangeloop (Virgin) and Gribbly's Day Out (Hewson Consultants).







›Top Five Charts (July 1985)

Amstrad CPC
1. **Knightlore** *Ultimate*
2. **Alien 8** *Ultimate*
3. **Beach Head** *US Gold*
4. **Rocky Horror Show** *CRL*
5. **Dun Darach** *Gargoyle Games*

Spectrum
1. **Jet Set Willy 2** *Software Projects*
2. **Soft Aid** *Quicksilva*
3. **Dun Darach** *Gargoyle Games*
4. **Cauldron** *Palace Software*
5. **A View To A Kill** *Domark*

Commodore 64
1. **Way Of The Exploding Fist** *Melbourne House*
2. **Dambusters** *US Gold*
3. **Shadowfire** *Beyond*
4. **Drop Zone** *US Gold*
5. **Elite** *Firebird*

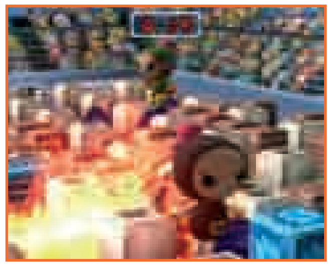
UK singles chart
1. **Frankie** *Sister Sledge*
2. **Axel F** *Harold Faltermeyer*
3. **Crazy For You** *Madonna*
4. **Cherish** *Kool And The Gang*
5. **Born In The USA** *Bruce Springsteen*

Retro Rated

Welcome to the *Retro Gamer* reviews section. Read on to discover the team's opinion on the latest commercial releases...

Bomberman Hardball





In the first of our Bomberman double bill, the explosive hero lands on the PS2 for some party-game action

Developer: Hudson Soft **Format:** PS2 **Price:** £19.99 **Players:** One-Four



Sometimes it's the simple game ideas that become hugely successful. Bomberman falls into this category, and the simple formula of blowing people up using bombs on a basic grid arena has made the title into a hugely popular game. But, over the years, Bomberman's simplicity has been eroded, and more and more features have found their way into the mix. Bomberman Hardball on the PS2 is perhaps the culmination of this evolution.

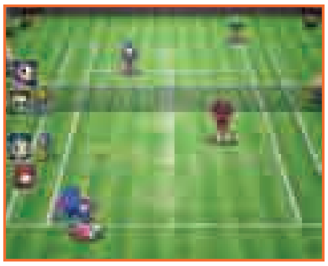
Hardball is a party game, pure and simple, and in what appears to be an attempt to steal some of the thunder from the PS2 incarnation of Super Monkey Ball, this Bomberman title is packed with mini-games as well as the staple bomb-blasting action.

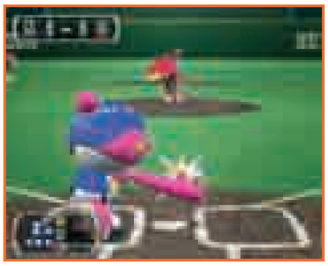
Besides the usual battle mode (with up to four players fighting it out), Hardball features other games, including tennis, golf and baseball (hence the Hardball name). The battle mode has masses of options, with obstacles like see-saws, conveyers, tunnels, holes and more, and uses the 3D engine to present a tilted viewing angle. There's also a rather odd 'Life Mode', in which you can watch your Bomberman, Tamagochi-style, as he wanders around his room. You can also use this mode to observe CPU-only games.

Visually, Bomberman Hardball is a great-looking game, and the bold and colourful style works very well. On the whole, all the games included are very enjoyable, and the golf and baseball games are excellently presented. Sadly, though, the tennis game lets the side down, mainly due to the total lack of speed when it comes to character movement, making it almost unplayable. And, despite being the core Bomberman mode, the battle game falls slightly short of the mark. The camera angle doesn't really work, especially when battles become hectic, making it hard to see what's going on. This is also a very multiplayer-oriented game, make no mistake, and those with no gaming mates to play with will tire of Hardball quickly. This fault is compounded by the lack of PS2 four-player support as standard, so you'll need a multitap to make the most of it.

If you're a Bomberman fanatic, or have the means (and mates) for some four-player action, this is a great little game. And, at only £19.99, it's hardly going to blow the bank.

Rating:







Bomberman DS

The Semtex-slinging hero is back for some portable pyrotechnics

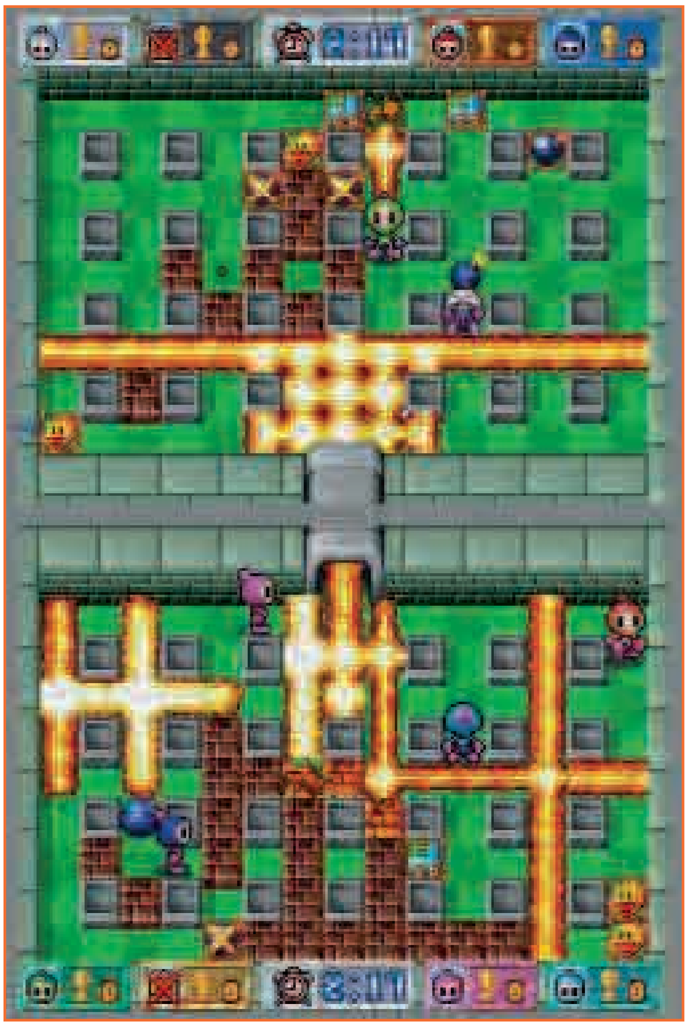
Developer: Hudson Soft **Format:** DS **Price:** £24.99 **Players:** One-Eight

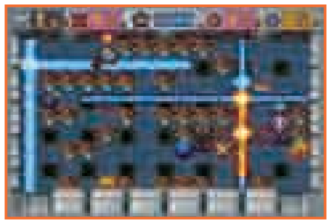


Right up there with the likes of Sonic and Mario, Bomberman has appeared in a huge number of games on practically every platform you can think of – not bad for someone who just likes to blow stuff up! Originally arriving on the NES in 1985, and going from strength to strength with each update, the explosive hero is now back on Nintendo's payroll in this DS incarnation. Gaming vets will already know the formula here – control Bomberman and strategically plant bombs around various mazes in order to blow up blocks to reveal power-ups, while taking out your enemies with well-timed fiery blasts. Your bombs start out as weak fizzles, but as you collect various power-ups, you can create numerous and more powerful explosions. Very simple but highly effective, and the core gameplay is just as addictive as it has always been.

Pick 'n' mix

As the series has evolved, it has gained more and more features and power-ups, many of which can also be found in this portable outing. And the new abilities of the DS are used to bring some





totally original additions to the mix. Of course, the game also has a one-player Story mode, as well as the standard Battle mode in which you have to fight waves of enemies and clear each level to progress to the next world.

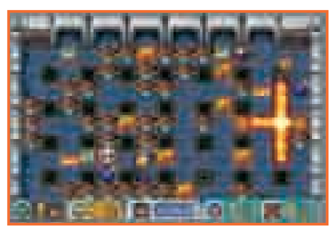
Some of the better features from previous games include the ability to kick or throw bombs, and remotely detonate bombs on demand (great for setting traps). There's also a shield option which protects your Bomberman from explosions. These power-ups are applied automatically in Battle mode, and in Story mode you have a power-up list you can select from at any time using the touch-screen window, one of the first DS improvements.

The DS version has a few other tricks up its sleeve. First is the dual screen. In all the Battle modes (of which there are numerous varieties), the playing area occupies both screens, creating a two-tiered effect with the areas connected by tunnels. This makes eight-player matches possible, and things can become very hectic indeed. The microphone on the DS is also used, and game modes include such variants as Voice Detonate, in which you need to shout 'boom' to detonate your bombs!

But all these gimmicks play second fiddle to the major attraction of Bomberman DS – its multiplayer possibilities. Thanks to the wireless connection option, up to eight players can link up and engage in fast-paced battles. This is an excellent feature guaranteed to interrupt many a maths lesson.

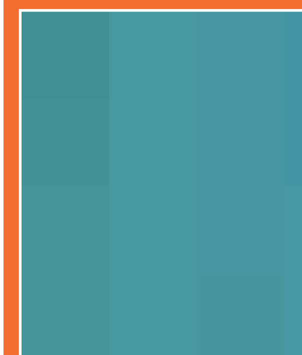
Bomberman DS is a great little game, and there are very few niggles you can pick out. True, the DS D-pad isn't great and controlling your Bomberman can be a little irritating at times, but this is no fault of the game. The single-player mode does become a little repetitive, though, meaning that lone players won't get quite as much play out of the game as those with DS-owning mates – but it looks great, sounds good and, more importantly, plays very well. If you're a fan of the cutesy pyromaniac then you'll find this to be one of the best versions of the series, and as Bomberman fits so well onto the handheld format, we'd recommend the game to anyone who has yet to sample its explosive delights.

Rating:



›Dyna-man

Bomberman started life in 1985 on the NES and was the brainchild of Shinichi Nakamoto (now Vice-President of Hudson Soft). Starting out as a simple single-player game, the series would end up spawning sequel after sequel, and even expand into the party-game multiplayer genre. Strangely, when Bomberman eventually arrived on European shores in 1991, the game's publisher, Ubisoft, renamed the game Dyna Blaster, which led many people to believe the English version was in fact a dodgy clone of the original game. Dyna Blaster was available for ST, Amiga and PC. But the Dyna Blaster name didn't last long, and from Bomberman II onwards, the games bore the correct title.



EA Sports TV Game



The beginnings of the most lucrative football series ever are revisited in the latest TV game from Jakks Pacific

Developer: Jakks Pacific **Format:** n/a
Price: £19.99 (one player), £29.99 (two player) **Players:** One-Two



Last issue we reviewed the latest Radica TV game, Sensible Soccer Plus, which reproduced the Mega Drive version of one of the greatest football games very well indeed. Continuing with the theme we have this new TV game from Jakks Pacific.

This bundle is a very attractive proposition for fans of EA's sporting titles, and comes locked and loaded with Mega Drive incarnations of footy classic FIFA 96 and ice hockey hit NHL 95. Both the versions featured are fairly accurate reproductions of the Mega Drive originals (with a few problems – more on this later), and the controller is designed to reflect the original three-button Mega Drive pad, in order to keep the same gameplay feel. Mounted onto the top of the controller is the battery compartment (which takes four AA batteries) and power switch, and there's a dedicated battery (supplied) for game saves. If you buy the more expansive two-player version (which we tested), you'll also receive a second controller hardwired to the main unit. As for the titles included, FIFA will no doubt be the focus for many potential buyers, so we'll start with that.

Own goal

Taking the formula of the preceding FIFA games, the 96 update improved the series by adding a faster engine, better graphics, more player moves, more teams and – for the first time – real player names. This surge forward in real-world marketing made people rush out and buy the game in droves, as they could now play as their heroes on the small screen. The result was a quality footy game dripping with real stadium atmosphere and two-player potential.

Sadly, the transition from the Mega Drive to this TV game hasn't gone well for FIFA 96, and the version we're left with here is a slow and clunky shadow of its former self. From the off, FIFA fans will notice the lower-quality sound, with grating MIDI music replacing the original Mega Drive audio. You'll then be hit with the sluggish menus that take ages to respond to joypad movements. Once you do finally make it into the game, you'll bear witness to a very slow and unforgivable port of the original, complete with shonky controls and unresponsive player selection. In fact, the game crawls along so slowly it almost borders on unplayable. And the lack of real player names hits the game like a high tackle. What was once a major selling point has been ripped out, leaving players with initials rather than names (Eric Cantona, for example, is E.C.).

NHL 95, on the other hand, is a much better title, and although it also suffers from the same lack of names and a little drop in speed when compared to the original game, it plays well enough on the whole. It's certainly much more enjoyable than FIFA. Graphically it looks fine, and the controls are much more responsive.

›32-bit FIFA

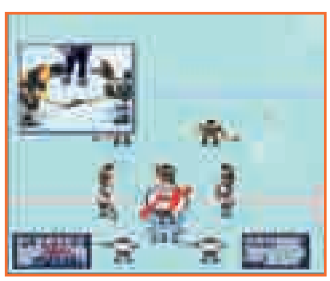
This version of FIFA 96 is based on the Mega Drive game, but the same game was also available for a wealth of other platforms, including PC, Saturn and PlayStation. These more powerful versions were totally different animals, boasting impressive 3D visuals (thanks to a brand new engine) and even commentary from John Motson. EA also introduced new 'Virtual Stadium' technology, which produced lifelike crowd noise and featured more realistic camera angles.

Both games feature all the original options and modes, such as cups, tournaments, leagues and a wealth of edit options, so if you have plenty of time you can put the real players back in. And, unlike the Sensible Soccer unit, the EA offering has a battery backup for saving games and edits, which goes some way to making up for the mistakes. There's also the two-player mode, though you'll need to fork out an extra £10 for the privilege.

Overall we're left with a very poor offering from Jakks, which is a shame as we all have fond memories of entertaining FIFA matches. Having said that, it's also true that classic FIFA hasn't aged well, a fact that's all the more noticeable after enjoying Sensible Soccer last month, which is every bit as fun as it ever was. If you're a footy purist or not a big fan of FIFA, you'll want to avoid this at all costs. If you're a die hard FIFA veteran, you should still think twice about shelling out for it.

Rating:

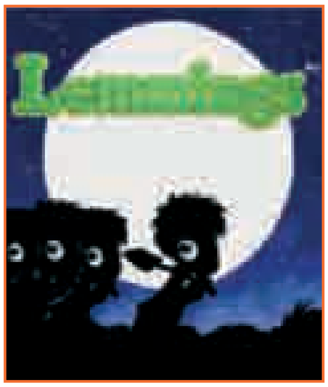




Mobile Reviews

Lemmings

Developer: iFone **Price:** £5.99

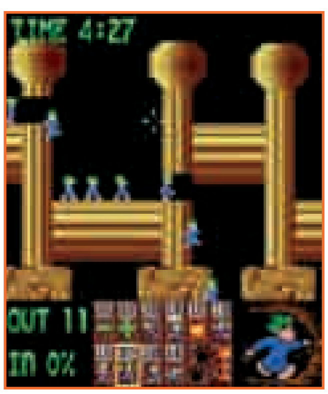


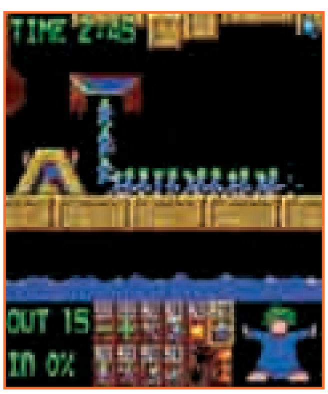
So there you are, about to play God with the lives of a bunch of Lemmings who do everything in their power, it seems, to get killed. But what a lovely change. Instead of helping them plunge to their deaths, you're tasked with saving their lives. It's a concept that has endured for almost 15 years and still appears fresh.

Lemmings first burst onto the computer scene in February 1991, the brainchild of Scottish developers DMA Design. Released via Psygnosis, the game took the Amiga and Atari ST by storm before being converted to just about every computer platform known to man. It swept the board when it came to awards and never seemed to score lower than 90 per cent in any magazine. *Retro Gamer* isn't about to buck that trend, for mobile phone Lemmings is as faithful and fun a version as you'll ever see.

The major difference between this and the game on the other platforms is, obviously, size. The lemmings are tinier than ever, due to the small screen size of mobile phones, and there are fewer of them. There are also fewer levels – the Amiga had more than 160 in the original game, but the mobile version has just 28, and 10 of those are in the 'fun' category and can be completed with hardly any thought.

The game itself, though, remains furiously addictive. And it's heartening to learn that Morgan O'Rahilly, Chief Executive Officer of developer iFone, previously worked on Lemmings Revolution. He understands the Lemmings concept and the result is a very faithful reproduction.





Suicide watch

For those few who are unaware of the whole Lemmings concept, you're in charge of a posse of suicidal rodents who fall one by one from a trap door in the ceiling of each level. You have to guide as many of them as possible to an exit archway. In your way are lots of potentially deadly obstacles, yet your Lemmings have a number of useful skills. They can climb, gently float down to earth by opening umbrellas, bash their way through walls, block other lemmings, build, bomb, mine, and dig down. By using the right combinations of moves you'll be able to guide your lemmings to safety.





Although some of the early levels are far too easy, they do help reacquaint you with the game – and learn the control method. Thankfully, the latter is easy to pick up: the 2, 4, 6 and 8 buttons direct your cursor, and 5 is used to select. The * and # buttons let you cycle through the different skills. Gamers with mobile phone D-pads will find controlling the lemmings even easier.

It can be unsettling not being able to use a mouse as was the case with the 16-bit versions. It means that some of the levels can't be as complicated as you'd like. But as you progress through the game, the inability to move and click with a mouse works in the mobile game's favour, turning Lemmings into an even more wonderfully tight and tense fight for survival as you frantically thumb your way around the directional controls and try to hit the right skill.

The graphics are detailed, well-animated and crisp. The screen is arranged very well with the skill icons positioned neatly to the bottom right and the number of lemmings available and percentage saved displayed to the left. The action takes part in the upper part of the screen with the fluid, fast-moving lemmings looking familiar from previous versions. But the music which runs through the game is so, so annoying – we guarantee you'll quickly switch it off. It may be faithful, but it doesn't work. It's also a shame there are no original sound effects such as, "Let's Go!"

Sound aside, this is a very welcome addition to the fast-growing number of retro Java games being ported to mobile phones. Some add-on level packs are being planned too: you can hear the cash register ringing already.

Rating:

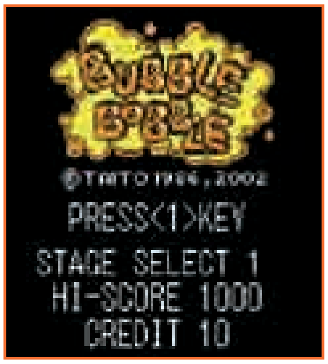
›Mobile charts

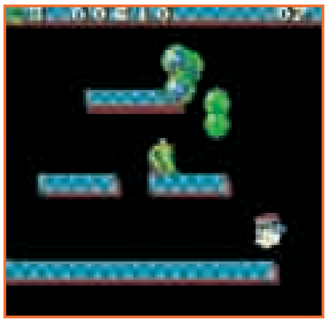
What would you know? Lemmings is currently topping the mobile phone charts. Here are the top ten mobile game downloads, compiled by ELSPA.

1. Lemmings
2. Who Wants to be a Millionaire?
3. Tetris
4. Pub Pool
5. New York Nights
6. Tomb Raider: The Osiris Codex
7. Splinter Cell: Chaos Theory
8. Space Invaders
9. Pro Bowling
10. Pub Darts

Bubble Bobble

Developer: Taito **Price:** £2.50





In the original arcade game, Bub and Bob were turned into brontosauruses. Worse, their girlfriends were kidnapped by Baron von Blubba – but luckily they were given the ability to blow bubbles. Armed with this great weapon of mass destruction, they worked their way through 100 screens in a bid to win their true loves back.

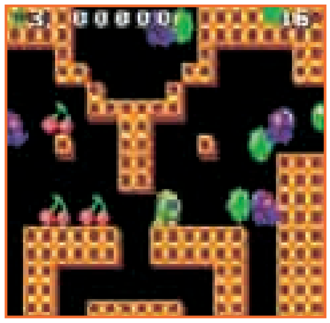
But this time around, there's no mention of Bob, and the lack of a two-player option removes one of the biggest appeals of the game. It was an absolute joy to work in tandem with a friend to clear each of the levels of nasties – before nicking some of the goodies from under their nose. Without it, the game loses quite a lot. Bub'll be thinking of you, Bob.

But that isn't to say the game is unplayable. Even without Bob, there's much fun to be had. It's still a deep and involving game which keeps you playing every step of the way. Thankfully, the game detects which level you reached when you last played and lets you pick up where you left off, making it perfect for dipping in and out of.

The graphics are basic at best, a problem many Bubble Bobble versions suffer from. Each level is distinguished only by different-coloured blocks. But the levels are well designed and the green and yellow Bub sprite is detailed – he looks very cute with his wide eyes.

Unlike the versions of the original game, which had static, non-scrolling, full-screen levels, the size of mobile phone screens means scrolling is inevitable. And while you don't always know where you're leaping to, this doesn't particularly distract from the action. Neither does the method of control, which is simple and easy to pick up. For the price, it's a bargain.

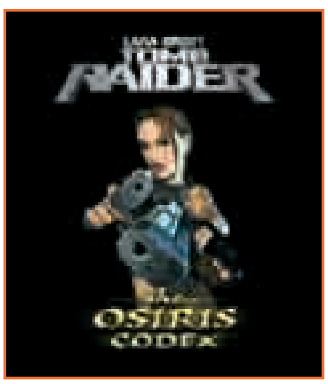
Rating:





Tomb Raider: The Osiris Codex

Developer: Infospace **Price:** £5



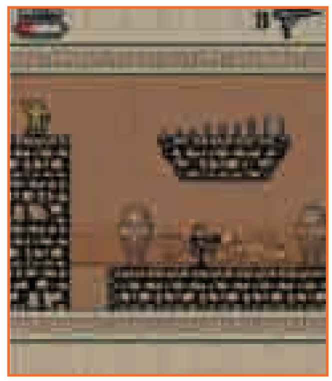


Is Tomb Raider a retro game? It debuted fairly recently in 1996 on the Saturn and PlayStation, and was an instant hit for developers Core Design and publishers Eidos. The reason why we've chosen to review it is because The Osiris Codex is a brilliant 2D platformer. Dare we say it, it's arguably better than the Tomb Raider 3D console games.

You have the perfectly animated Lara searching for treasure in nine huge caverns, using brain and a smidgen of brawn. The levels are linear but packed with puzzles to solve, from activating levers and pulling and pushing boulders into position, to climbing ladders and careering down high wires. It's refreshing to see how much intelligence has been used in designing the levels and puzzles so they constantly engage and never bore. It feels similar to Prince of Persia at times as you pull yourself up walls, dangle from ledges and jump over spikes hidden in recesses.

You can play in Adventure, Arcade and Time Trial modes. The graphics are all the same – everything is so brown. The brick walls are dark brown, Lara wears brown (must be the new black) and the backgrounds are an orangey-brown. It could just do with a splash more colour. Sound is sparse too but perfectly so.





The noise of a moving boulder and the 'pfff' of a bullet are ample enough audio.

This is a retro game through and through, and you'll love it.

Rating:

Thanks to O2 for the loan of mobile phones

eMag

Desert Island Disks



Paul Drury talks to programmer and designer Tim Skelly, uncovering his gaming credentials and his eight favourite titles



Tim Skelly – pioneer of vector graphics gaming and long-time industry campaigner

"A guy walks into a bar with an orange shoebox under his arm," begins Tim Skelly, but this isn't the start of a joke. It's the start of a career that saw Tim produce Rip Off, Star Castle and a string of beautiful vector coin-op games in the late seventies and early eighties, spend time at Sega and Gottlieb, collaborate with Yuji Naka on Sonic 2 and go mad at Microsoft via a strange reworking of the Dead Parrot sketch. But for now, let's get back to that bar…

"The guy sets up this box, which we realised was a computer, attaches it to a little monitor and starts to play some rudimentary games – Poker, Tic-Tac-Toe and the like. He began talking about this plan he had to set up some kind of computer store where people would pay to play games. It all seemed very strange in 1977. I was really curious and wanted to find out more, but it was a toss up between hanging around or going to see *Star Wars* again. I stayed in the bar, got into a conversation with him and thought, 'This doesn't seem too hard…'"

Tim's confidence wasn't misplaced. He asked to borrow the machine and used it to produced four games for this pioneering attempt at setting up the first Cyber Cafe, the most popular proving to be Mazebomb, which challenged the player to defuse a bomb through careful wire-clipping. Whilst the business never took off, it did convince Tim that this was something he wanted to be a part of. His interest in computers, though, was initially more to do with their visual appeal than their technological potential.

"I have this vague memory from my early youth of walking past an IBM showroom somewhere in Ohio, where I grew up, and I just loved the look of the machines.





Unsurprisingly for a *Star Wars* fan, Tim based Star Hawk on the famous Death Star trench run



Is this photo the videogame equivalent of having your name above the credits? (Photograph by Mike Tappin)

I stared through the glass at the pillars of computers; felt the nice, cool atmosphere. It made some kind of lasting impression on me."

Back in the bar, Tim got friendly with the guys that emptied the quarters from the Pong machine and they passed on a copy of *Replay*, which contained the contact details of all the coin-op manufacturers. He wrote off to all of the West Coast companies, as keen to leave his current state of residence (Missouri) as he was to get into the industry. California-based Cinematronics, which had just had considerable success with its version of Space War, invited Tim for interview.



"I met this guy, Larry Rosenthal, there and he showed me this bizarre contraption he'd built for coding Space War in machine code. It was intimidating, as I hadn't done any vector graphic work before, but I thought I'd give it a shot, if they'd have me."

Tim returned home, assuming he'd been unsuccessful. So he was pleasantly surprised when he got the call offering him the job. But America isn't called the Big Country for nothing and in the four days it took him to travel from Missouri to Southern California, there had been big changes at Cinematronics.

"When I got back there, I found Larry had gone, the machine for programming had gone... he'd taken everything, including the op codes for the hardware. There was nothing there! He'd gone off with one of the sales guys to start their own company, Vectorbeam. I know he'd just given me my big break, but I was still enraged. It was just an unconscionable thing to do."

A star is born

Tim stood alone, with no hardware, software or mentor, angry but also terrified that he simply wouldn't be able to deliver a product. Over 100 factory employees were relying on him to produce a game that they could manufacture and therefore earn the means to feed their families. Many would buckle under such pressure, but thankfully, Tim drew strength from two sources. First, a conversation with Tom Defante, who created the computer cockpit read-out for the Death Star assault in *Star Wars*, gave Tim some useful pointers. Secondly, and perhaps more fundamentally, one of the tech guys had sneakily made a copy of the operating codes before Rosenthal did his disappearing act. "He got a big bonus for that," Tim recalls, and the relief can still be detected in his voice.

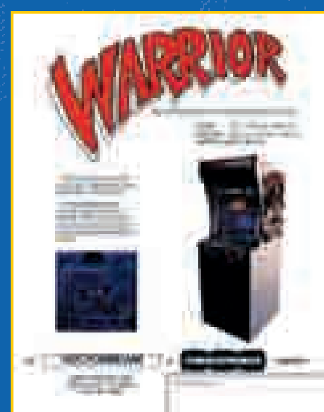
Nonetheless, it was still an uphill struggle. Tim had to bash in raw hex code via a teletype machine, and because he didn't have the luxury of a compiler or even a printer, everything had to be jotted down on yellow notepads. Those really were the early days.

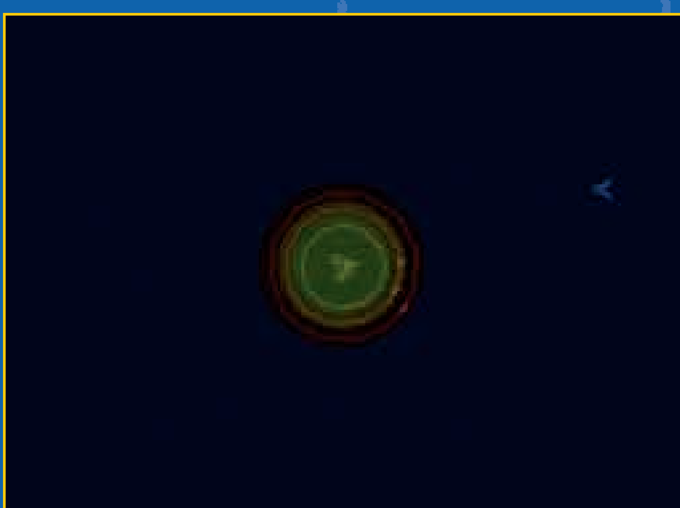
"Just writing code to get an image on screen was tough. It was so low level – I had to turn the beam on and off and make sure it was positioned properly or else the thing would explode. I remember we tried stuff like shooting the beam off the edge of the tube and you'd get this great electron scatter, which was really cool, but they said we couldn't do it for Health and Safety reasons. I mean, this thing could blow up.

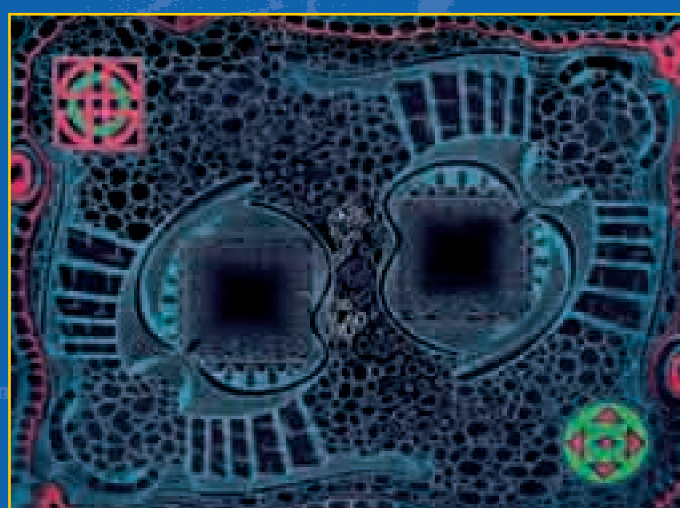
"One night, I finally got everything stable enough so all the graphics I'd plotted on paper were actually on screen. My boss, Tommy Stroud, told me to ring him when I'd got it working. It was pretty late at night, but I rang him and he came rushing over and said, 'This better be good – I got out of bed with my wife for this.'"

Mercifully, Tim can recall just how excited Tommy was when he saw the first functioning version of Star Hawk. The game, which drew on the *Star Wars* trench run, was premiered at an arcade trade show held at Alexandra Palace in the UK in 1978. As few companies were showing new products, it attracted a lot of attention, though Tim remembers the trip to London for more surreal reasons.

"We were typical Yanks in England – we rented a car and set off for Stonehenge! The tourist book we had said we







Tim's prolific output continued with Star Castle and Warrior, both released in 1979

could also find Woodhenge in a peat bog somewhere, so we drove round for hours and ended up drifting onto an army base. We asked this Sergeant Major for directions, and he replied in this great British accent, 'Woodhenge? Nevah 'erd of the place!' We fell for the Woodhenge gag, I guess."

Cinematronics killed my son!

Star Hawk went into production and its success single-handedly saved Cinematronics. And that was in spite of the fact that the cabinets were potentially lethal.

"Hey, I said it was the early days," Tim explains, by way of an excuse. "Jim Pierce, a co-owner of Cinematronics, had designed the cab and it had this kind of forward hang that we didn't pay much attention to. There were no joystick manufacturers at the time so you had to build your own, and our engineer made one out of a steel pole attached to a steel plate. There was no spring to the thing, just the weight kept it upright, and they could not be broken. We actually ran trucks over them – unbreakable. They were so heavy we put bicycle grips on them and kept them around in case anyone broke in. They made great cudgels! Unfortunately, they also made great handles and this kid out in the field nearly pulled the whole machine on top of himself. After that, we had to start shipping them with cinder blocks in to weigh them down."

Thankfully, there were no actual fatalities, and Tim was able to complete his next game, Sundance, the following year. It was an unusual mix of Pong and Noughts and Crosses. Each player controlled a 3x3 grid, set at the top and bottom of the screen, and fired 'suns' at their opponent, who could open up a hatch and catch the shot to score. "Girls seemed to like it. I don't want to speculate as to why," adds Tim, salaciously.

Sadly, female gamers were in the minority back then, and the game wasn't a roaring success, though it did boast the forward-thinking inclusion of Japanese text when the game was premiered at a Tokyo trade show.

"I have this vague memory from my early youth of walking past an IBM showroom somewhere in Ohio, where I grew up. I stared through the glass at the pillars of computers; felt the nice, cool atmosphere. It made some kind of lasting impression on me"

"I asked a friend to find a translation of the word, 'bonus', which I put in the game, but then it turned out it had come from an employee of Atari, our main competitor. I started to worry she'd given us something very different to sabotage us. At the show, there was this really polite Japanese girl playing it and I nervously asked her, 'Does that say "bonus"?' She looked at me quizzically for a while and then said, 'Hi, Bonasu!' Thank you, Jesus! It could have been so embarrassing..."

Tim's great foresight was once again demonstrated when he produced the first one-on-one fighting game, Warrior, in 1979. The game is widely regarded as the finest example of vector game art – the beautifully drawn and animated sword-wielding knights are complemented by some truly exquisite backdrops and cabinet art. Tim agrees that it was a high point in terms of aesthetics, but isn't quite so enthusiastic about the gameplay.

"Someone pointed out, not so long ago, that it was actually a very elaborate game of rock-paper-scissors. I think there's a bit more freedom than that, but if you see the sword as a thumb, then yeah, I can see the parallel."

Castle master

By this time, Cinematronics had bought out its rival, Vectorbeam (perhaps to reduce competition, though Tim later reveals that there were more underhand motives at work). While visiting the new acquisition, based in Northern California, Tim was quite taken with a demo, which featured big snowflakes drifting onto the screen, and the player's ship shooting out from within a series of rotating walls.

"I felt there was something interesting about those rotating rings," Tim recalls. "And I got to thinking, what if the player is on the outside and this big ass gun is in the middle? We added space mines, which worked their way out to attack you, and gave the gun knowledge of when to fire. You could protect yourself by not shooting everything... but there was always someone ready to shoot your ass."

The game was christened Star Castle and even made a cameo appearance in *Ghostbusters* (though you'll need to watch the widescreen version of the film to catch a glimpse). It's an intriguing game of risk and reward – every segment of wall destroyed brings you nearer to success, yet more vulnerable to the deadly fire of the particularly brutal super gun. Tim seems to have a penchant for creating ruthless 'boss' characters – Armor Attack, which appeared in 1980, features a helicopter that hovers over the tank battle you're engaged in, ready to pick you off from above. A quirk of the hardware, though, gives players an unusual heads-up.

"We could draw objects off-screen, so they could float on fully formed, but it meant you could see this glow as the beam did its work, which gave you a hint of where the copter was gonna come from."

Tim notched up another first when he put a co-operative mode into Rip Off (1980). This unique feature, which allowed two players to co-ordinate strategies in a bid to protect fuel canisters from marauding space pirates, had an unusual genesis.

"My girlfriend at the time was a DJ in Kansas City and was privy to all kinds of market research about an age group that was similar to that playing videogames. She told me about this research that said kids were more interested in co-operating than competing and it reinforced ideas I already had about doing a co-op game. That one decision made it – it wrote itself after that."

So having produced half a dozen hit games in just three years, we can't help but wonder why Tim then chose to walk away from Cinematronics. Was there one particular reason?

"Yeah, one main one – I was fired. Leaving aside my attitude, I knew a bit too much about how the company worked. How can I put it... those guys, Tom and Jim, they had ways of hiding money. They'd purchased Vectorbeam ostensibly to buy out the competition, but the real reason was to get the patents on the Vector technology, so that they could personally get a hell of a lot of money in royalties for every game shipped. I was there saying, 'Hey, can I have a little bit?' but was getting nothing, so the tension was high. I would sometimes get these under-the-table cash bonuses from Tom of like £1,000, which at least kept me in coke for a while."

No kids, he doesn't mean the sugary drink, but then this was California at the end of the





Rip Off, Tim's last game for Cinematronics, and Reactor, his first (and only) released title for Gottlieb

seventies and it does help to explain his prolific game output. Tim's impressive portfolio meant he had little trouble getting a new post, this time at Sega, which was at the time looking to get into Vector games. Tim remembers his short time there fondly – great salary, nice people and considerable progress on his first project for them, which he describes as being a little like Tempest, the difference being that your ship had the ability to move in and out of the screen, as clouds rolled past majestically.

"I was happy with how things were coming along… until Cinematronics sued me! It was done just to annoy Sega, which was using Vector technology it had the patents on. We were all legal and Cinematronics never got a penny, but I had to agree to never work on another Cinematronics game – fine! What did happen though, was that Sega said, 'Sorry, we're going to have to let you go,' which was pretty awful for me."

Ram Man

Once again, Tim's profile in the industry meant he was immediately contacted by Howie Ruben at a pre-Q*Bert Gottlieb. Tim decided to resurrect a concept he'd had back with Cinematronics in San Diego, and threw himself headlong into his first project for the company. Literally.

"We had all these shooting games and I thought, 'What the hell… Why not shoot your own head into something?!' You were the projectile. My original title was Ram-It, but it ended up as Reactor."

Released in 1982, this intriguing game centred around a volatile, expanding and rather hypnotic reactor core, and included yet another example of Tim's pioneering work – it was the first arcade game to feature the programmer's name on screen.

"I was very irritated that programmers weren't getting credit. It happens in all fields. I didn't have a problem negotiating it with Gottlieb because the company came to me, but I did need it written into the contract for every game."

Two more 'Skelly games' were produced for Gottlieb: Insector, a colourful, creepy-crawly riff on Robotron; and Screwloose, a manic, multi-directional shooter starring a three-handed robot called Robop, who resembled the unfortunate offspring of Al Jolson and Dusty Bin. Both games reached prototype stage, but became casualties of the infamous videogames crash of 1983.

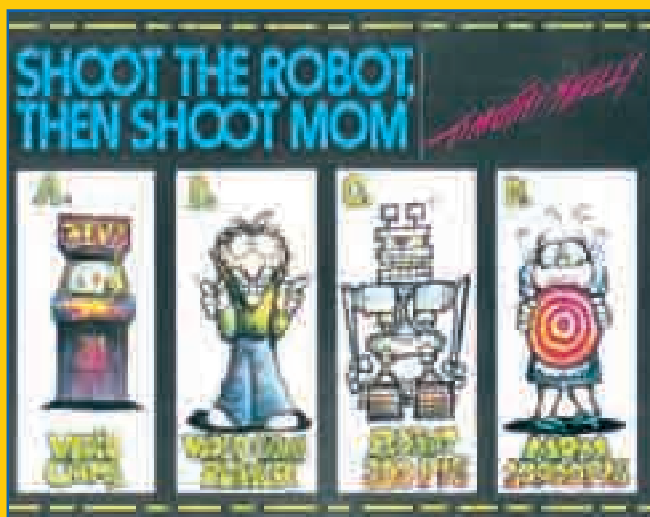
"There was a glut of games and almost none were getting out," explains Tim. "A lot of good games from some really talented people just didn't make it. I don't know about mine… I guess both fell short of what they could've been and with so much competition, they weren't going to make it."

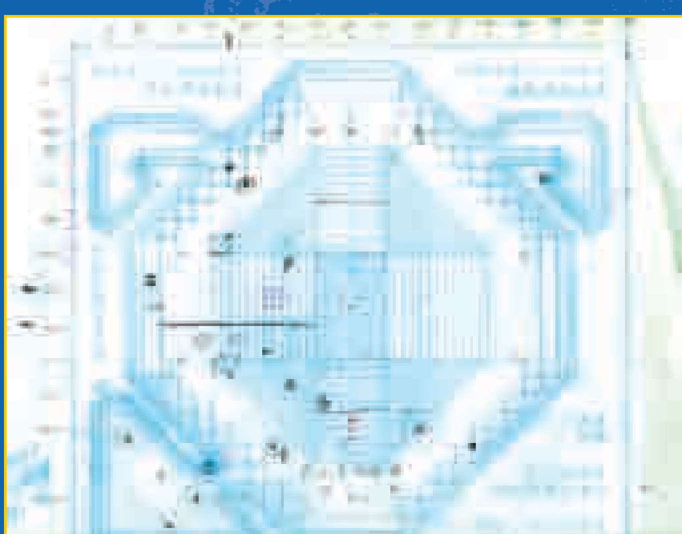
Tim suggests that anyone interested should seek them out on MAME, which is where gamers are perhaps most likely to find his work. That said, the Vector technology used in Tim's Cinematronic games was notoriously temperamental, so it's unlikely you'll find one of his

›Don't tell Mom…

During his time at Gottlieb, feeling "pretty pissed off" after discovering another programmer was getting a bigger cheque than he was, Tim produced a collection of cartoons on videogaming, loosely based on the format of the then hugely popular *101 Things to do with a Dead Cat*. Tim explains the story behind the esoteric title, *Shoot The Robot, Then Shoot Mom*.

"It's all thanks to Eugene Jarvis. I was in an arcade watching a kid play Robotron. I noticed that he had wiped out all but one robot in the first wave. He still had one 'mom' character on the screen, and rather than picking up mom and killing the robot to end the round, he was blasting the hell out of her! If you know the game well, as I obviously didn't at the time, you know that Eugene built an 'idiot mode' into the game. That is, like in the old pinball machines, if the player was particularly bad at the first ball or round, the machine would cut that player some slack. In the case of Robotron, if you shoot the characters you are supposed to rescue, the game assumes you are an idiot and makes things easier for you. The kid I was watching obviously knew more than he should have. Hence the title…"







Every title was meticulously planned on paper, as this comparison between the Reactor design and the finished game shows

early coin-ops still functioning (although Archer Maclean has a mint Warrior cabinet in his basement). You should also keep in mind that many of the games rely on an overlay, meaning their emulation on a modern PC only tells half the story. You might be better advised investigating the several that were converted for the Vectrex.

Sonic heroes

With the industry in turmoil, it seemed to Tim that the whole ride was over, so he was mightily relieved to be invited to join Incredible Technologies. This new firm had been set up by an old colleague of Tim's from Gottlieb and friends from Midway. It's aim was to produce software for the PC and recently released Amiga. Tim's art background – he'd studied at the Chicago Academy of Fine Arts at the start of the 70s – meant he had a considerable edge over many artists in the business. He spent six years there as Art Director, combining a supervisory role with some hard coding, and contributed artwork to numerous projects, including Championship Wrestling for Epyx, the stylish Three Stooges licence and the concept designs for MechWarriors – his influence can still be seen in their current incarnation.

At the start of the nineties Tim returned to Sega for a year, this time with the exciting but slightly daunting task of supervising the American and Japanese artistic teams about to work on Sonic 2.

"That was an awful lot of fun – for me, at any rate. The stress levels at that place were through the roof. Mark Cerny should get a lot of credit for pulling everything together. He'd worked with Yuji Naka in Japan and made it possible for Sonic Team to come and work in the States. They were kind of barred from working in Japan – bad boys! We used to call them The Outward Bound Programme for Troubled Japanese Youth."

Sonic 2 was launched to critical and commercial acclaim and is usually cited as the pinnacle of the series. Tim contributed a great deal to the project, both in terms of art and management, and can claim specific responsibility for the striking and surreal Special Stage.



The 3D bonus stage in Sonic 2 harks back to Tim's first arcade title, Star Hawk

"You had to make art from what you had. With such low resolution, making really good realistic artwork was hard. Abstraction gave me freedom."

Tim's offbeat attitude to computer visuals and interest in what makes games fun, led him to attend and speak at a number of user interface conferences, which in turn landed him a consultancy gig at Microsoft. He ended up getting hired and was required to consult with the Utopia group, which was working on the Microsoft BOB project. Tim takes up what he describes as "a peculiar and slightly embarrassing tale."

"The idea behind BOB came about because Windows was at that time still really difficult for ordinary families to use. The plan was to create a Personal Digital Assistant that was like a little character and I came up with loads of sketches. They liked 'Peedy the Parrot' best. Within my own group, I did modelling, animation and work on social interaction and eventually we got a demo together for the Consumer Electronics Show – you could talk in natural language and Peedy would respond. Microsoft BOB was a great idea and a fantastic product, but it really had to be part of the Operating System to work effectively. Gates said no, so it became this application that sat on top of the OS and slowed everything down brutally. It became one of the more famous laughing-stock stories of the time."

Ex-parrot

With BOB gone and the parrot deceased, Tim lost the plot – "they drove me insane, then fired me for being crazy!" – but his mental health improved considerably with the large pay-off and stock options that made him, for a time, "a mini-Microsoft millionaire." Since 1996, he has been self-employed as a Motion Graphic Designer and has produced several title sequences for movies and even a short film of his own, *Kane Kong*. All of these can be viewed on his website – **www.designhappy.com**.

As we move on to chat about his future plans, Tim expresses an interest in returning to the games industry, perhaps through downloadable games, which return to the notion of videogame designer as auteur. He compares the current state of games production to the studio era of Hollywood, where a few companies dominated the industry with products that were indistinguishable from each other. We revisit the old chestnut of 'Are games art?' and he enthuses about Tim Schaffer's new game, Psychonauts, which shows there are still people out there with the vision to try something left-field and artistic. We remind him of an interview he did in 1982, in which he predicted imaging would become "ever more realistic, with games computer-matrixed into homes... but we'll always remember Pac-Man fondly." He laughs and modestly mutters, "I wasn't far off, was I?"

But it is perhaps appropriate that we end up where we began, discussing the enduring fascination with Vector games.

"Yeah, they can be pretty mesmerising. The whole concept of a light source rather than a reflected image is pretty powerful. You only get it when you're sitting in front of a candle or a Vector game. Concentrate long enough and you can fall into a light hypnotic trance. It's like staring into fire."

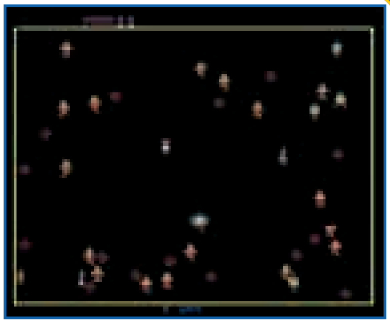
Long may they burn, Tim.



Tales of the parrot's death are greatly exaggerated, as Peedy is still fluttering around in the depths of Microsoft Office

›Tim Skelly's Desert Island Disks

Robotron



The best arcade game I've ever played. I know things are now much more sophisticated, but I still love it. Everything is just so sweet. I knew Eugene Jarvis when I worked in Chicago, though we were never at the same company. I pretty much sucked at it... well, not sucked, but I wasn't great. Despite that, I just couldn't stop going back for more punishment.

Tempest



A great game and it doesn't hurt that it's a vector game. Asteroids was great, but Tempest had the colour vectors, which I worked with for a short time at Sega. Plus, the spinning shooter was inspired. It was that kind of creativity that inspired me to make the player the projectile in Reactor.

Rip Off



My own game, I know, but I think I should have one on my island! Yeah, I know, I'm on my own on the island and the single-player game isn't that exciting, but it's the game I'm most proud of and the one I enjoy playing the most. And there's always that monkey to train.

Street Fighter II

Again, not the perfect desert island game, but the play is so well balanced a monkey could easily take me on. This game marked a watershed in the industry and I loved playing it. The language of the fighting game was crystallised here. At Incredible Technologies we studied it for a fighter of our own, Time Killers. Hmm, Time Killers, Rip Off – is there a hidden message there?

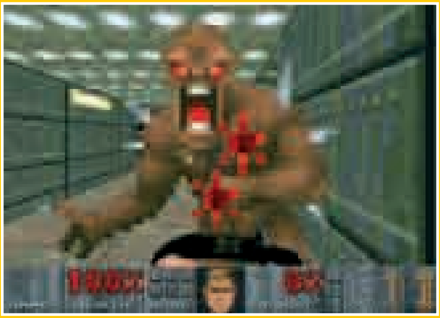


Indiana Jones and the Fate of Atlantis



I also like The Infernal Machine, but this is my favourite Indy game. Great writing and an all-round fun adventure game. I was always a huge fan of LucasArts. I wanted to put more of them on my list but I didn't know where to stop. Dark Forces was another LucasArts title I especially enjoyed.

Doom 2



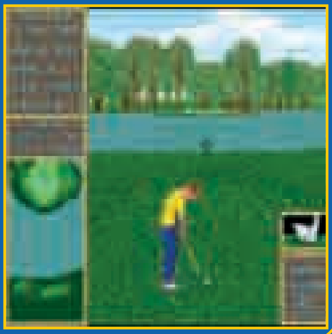
It whetted my appetite for the deathmatch, though I enjoyed the single-player game a lot. I was working at Microsoft when it came out and we found it very easy to network things up quickly. Oh, how we enjoyed those deathmatches. Screams of agony and glee filled the halls for hours.

Beetle Ju



One of my favourite downloadable games and it's certainly been a great time waster for a long time now. It's not really a platform game, more a cell maze game. It has these cute graphics and an old time feel and I just find it really playable. Also, it reminds me that great games can be made by just one person or a small group of friends. That's something I'd like to see more of.

Golden Tee Golf



This was the last game I worked on at Incredible Technologies – just some artwork – but it's kept the company going for years, building a new version every year. The simple, intuitive notion that a track ball is the closest analogy to swinging a golf club was the key. If I was on a desert island, this is definitely one game I'd want with me.

ATARI LYNX

PORTABLE COLOR ENTERTAINMENT SYSTEM

1989 heralded the arrival of 'gaming on the go'. For the first time, people had the opportunity to take console gaming out of bedrooms and living rooms and onto trains, planes or wherever else they happened to be. Nintendo released a monochrome machine which was a lot of fun, but primitive in comparison to full-size consoles and computers. Atari, meanwhile, released a full-colour powerhouse of a handheld offering games comparable to anything else available at the time. But it was Nintendo's GameBoy that came to define the first generation of handheld gaming. Peter Latimer looks at what happened to the Atari Lynx

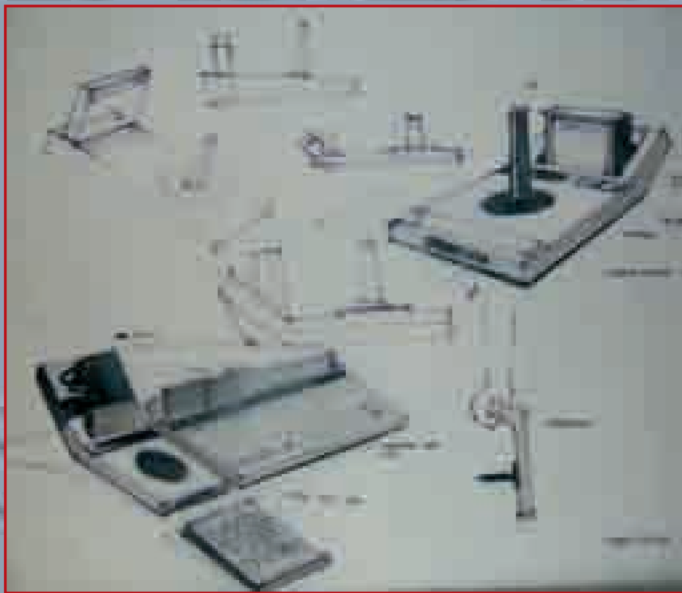
Nolan Bushnell founded Atari with the vision of uniting leisure and advanced technology, so it was natural he wanted to see his games machines in people's living rooms. But even as the Atari 2600 was making that goal a very lucrative reality, he was already considering the next step: to let people enjoy that same quality gaming experience outside the home. In 1981 work began on the Atari 2200, a portable version of the 2600, but the available technology wasn't up to creating a handheld console and many of the design concepts amounted to little more than an Atari 2600 with a handle. Some of the more promising ideas included built-in joysticks, and even a small detachable monitor, but none captured the spirit of Nolan's vision and the project was cancelled, though one of the concepts eventually saw the light of day much later in the form of the Atari 2600jr. Along with its rivals, Atari returned to the task of creating the next generation of full-size games machines and the notion of a portable console seemed to have been forgotten - until a sunny afternoon in 1986 when three very significant industry figures happened to be eating lunch at a small cafe in Foster City, California.

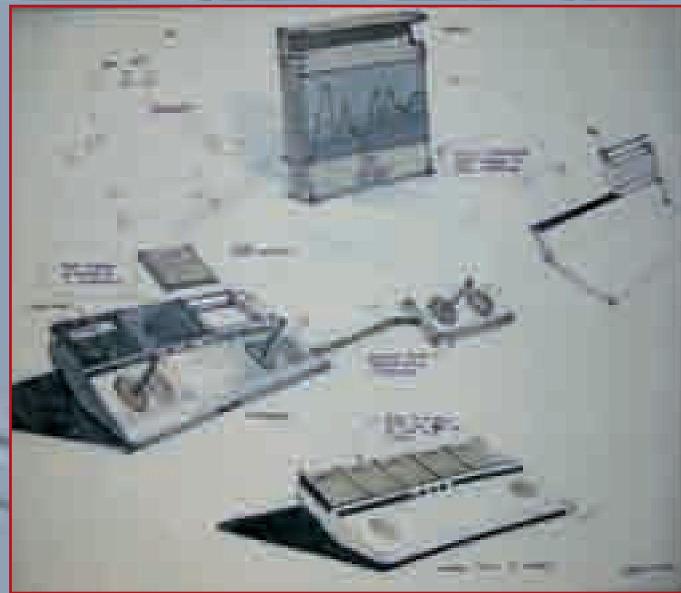
Working lunch

David Morse was CEO of growing software firm Epyx, Dave Needle had been working at Apple, and RJ Mical was looking for a new project after finishing work on a game. All three had shared a past as vital parts of the team that originally masterminded the Amiga home computer before Commodore became involved. RJ Mical had been responsible for the graphics library and user interface, David Morse had provided business expertise, and Dave Needle had been the Janitor (but was soon promoted to Senior Hardware Architect after displaying a remarkable ability to solve problems for hardware engineers). Morse had invited his two old colleagues to join him for lunch to discuss the possibility of working on an exciting new project for Epyx.

Epyx had begun life as a small company dedicated to creating software inspired by the role-playing game Dungeons & Dragons, but in recent years some elements in management had pushed the company towards arcade-style games, leading to the resignation of the original founders. The change in direction may have jarred with the founders' ideals, but it helped turn Epyx into a company which brought in $10 million per year at its peak, and David Morse found himself leading a company which







Some of Reagan Chang's concept designs for the portable 2600, codenamed Atari 2200. (See **www.atarimuseum.com** for more sketches)

was ready to move up from creating games for other people's machines to producing its own console. When his son had asked him if he thought they could make a handheld console, he'd known right away that Dave Needle and R.J. Mical were the right people to call.

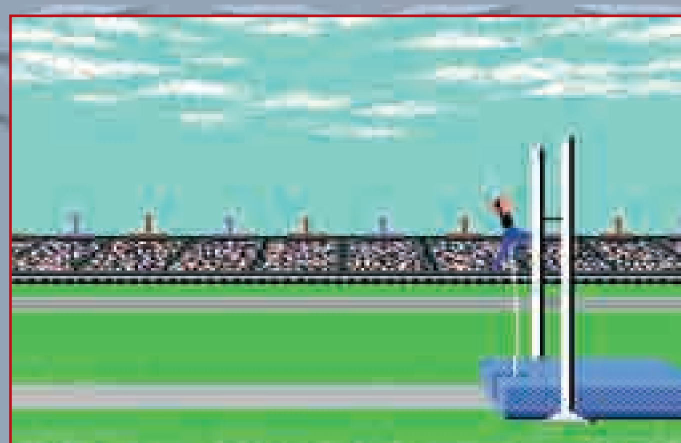
Needle and Mical had become friends during the 1985 Summer CES at the Amiga's unveiling. They had quickly grown to like one another and discovered that they each complemented the other's skills and methods perfectly. Soon they began collaborating closely on the next Amiga but became frustrated by Commodore's management style and went their separate ways. Now, though, the friends were back together, and had just been asked by a respected ex-colleague if they would like to help him create the world's first colour, handheld games console. In the 90 minutes that followed, napkins were used to sketch out various ideas for the new machine. After lunch Morse left to secure capital for the new project, while Needle and Mical begin to work on a prototype of the machine that was going to make Epyx a major player in the console market: the Handy.



Very Handy

It was going to be an unbelievable console – full colour, with hugely powerful graphics and sound hardware, yet still small enough for people to easily carry around. The Handy prototypes were, from a technical point of view, almost identical to what was eventually marketed as the Atari Lynx. Under the direction of an 8-bit 65C02, two 16-bit custom chips co-operated to maximise performance by each taking responsibility for different aspects of a game. One, named Suzy and running at 16MHz, was responsible for the blitter, sprite rendering (unlimited numbers of sprites were allowed) and hardware scrolling, as well as high-speed scaling, distortion and tilting effects. The other custom chip, Mikey, was responsible for the four-channel sound (each with an 8-bit DAC for high-quality samples) and the video driver which permitted 4,096 colours with 16 on screen at any one time (though a higher number was possible with clever programming).

Mikey also controlled the functionality which would allow multiple consoles to be linked together, and managed the circuitry for reading data from magnetic tape. Bizarre as it seems now, the original design of this high-tech machine called for games to be loaded from tape. Before the project's completion, that idea was unsurprisingly dropped in favour of cartridges, but its legacy meant that the console couldn't directly read from a cartridge – each piece of data had to be copied into system memory before it could be accessed, just as if the ROM



Epyx had made its name on the Commodore 64, thanks to a number of top titles including multi-event sports games



Sega's attack on the GameBoy may have been more below the belt, but Atari also targeted Nintendo's handheld in its Lynx advertising campaigns



Atari was keen to point out the advanced features of the Lynx, which put it on a par with the home systems of the time

had been on magnetic tape. The console had 64KB of on-board memory and the wafer-thin cartridges were intended to hold up to 2MB of data.

With its ability to link many consoles together, multiplayer gaming was at the heart of the new console. In the earlier Handy designs the connection had been via infra-red, but in the final Atari version a simple but effective cable connection was used instead. The original design also allowed a single game cartridge to be passed from console to console, meaning only one cartridge was needed no matter how many were playing. Unfortunately, when it became clear that games were going to be larger than could be held in system memory, this plan had to be abandoned.

Jacking it in

Compared to anything else available in 1986, it really seemed like Mical and Needle had triumphed. Epyx set about making the ambitious design a reality and by 1987 the plan had proved to be much more than a pipe dream – Handy was ready to go into production. It was small enough, affordable enough and fully backed by Epyx's strong games development teams. It seemed inconceivable that this machine would be anything other than outstandingly successful.

But the previous two years hadn't been kind to Epyx. A lot of its success had been tied to the C64, and the C64 had peaked as a commercial games platform, taking Epyx's profits with it. Some poor business decisions, such as investing in VCR games, had made the situation worse and money was running out. Staff levels dropped from 200 to just 20, and one by one Epyx cancelled its projects until Handy alone was left, the only undertaking that could revive its fortunes. No longer having the resources to bring the console to market on its own, Epyx began searching for help.

Morse contacted a number of potential partners and top of the list was Nintendo, the biggest name in videogames, but Nintendo had already begun work on its own handheld and passed. Further down the list was Atari. Though Atari had once ruled the gaming world, it was now under the control of Jack Tramiel who had a frightening reputation for ruthlessness and was blamed by many for the Atari 7800's failure. Few at Epyx were keen on working with him – but with no other willing partners, and time running out, Epyx signed a deal in which Atari would manufacture and market the hardware, while Epyx would provide the software.

Jack had acquired Atari in order to wage war against Commodore in the home-computer market. Believing consoles to be dead, he'd cancelled all Atari's gaming projects, but after being proved badly wrong by Nintendo's hugely successful NES, he was keen to place Atari back at the forefront of gaming. Handy seemed like the perfect product to help him do just that. The destruction of Commodore could wait.

The terms of Atari's contract with Epyx were extremely strict and Epyx simply wasn't able to meet them all. In a typically uncompromising move, Jack Tramiel decided to withhold an important milestone payment, sending Epyx into chaos. Lawyers became involved and in the end Atari made a one-off payment to Epyx in return for becoming the sole owner of everything associated with the Handy. The payoff couldn't keep Epyx afloat for long, though, and with its one serious project gone, the company was soon declared bankrupt. Mical, Morse and Needle returned to that same cafe in California to sketch out ideas for another innovative new project, leaving Atari with a piece of technology that was going to give it the same kind of head start on its competitors as the original Atari 2600 had a decade ago. Or at least it would have, if Atari had done anything with it.

Lynx unleashed

It isn't exactly clear why Jack Tramiel didn't push ahead with the new console's release. Possibly there were unpublicised technical difficulties in finalising it. It could also be that he was again following his often criticised wait-and-see approach, holding out until he could be more sure there really was a market for handhelds. Or perhaps he just couldn't stomach the notion that games for the

›Keeping it real

Anyone who's ever worked in the computing industry knows that the aim isn't necessarily to give your customers what they want, it's to make them think you've got what they want. And at the unveiling of the Lynx, system creators Dave Needle and RJ Mical took that concept pretty far.

Mical revealed in a 1989 EGM interview that a small number of people had been invited to view the new console behind closed doors, each signing a non-disclosure agreement before the demonstration began. The lucky invitees were taken to a private room where the seemingly complete and fully functional console was sitting on a table. Rather ominously, a lead was coming from the console that appeared to connect to something outside the room, though nobody seemed to notice.

In actual fact, Needle and Mical were in the next room, surrounded by computers and large electronic components, all of which were required to do what the Lynx was eventually going to do. The marketing department were in on the scam and had agreed that each time a client wished to move on and see another game demo, they would press a secret button which brought a light on in the next room, signalling Needle and Mical that they needed to feed the not-quite-complete Lynx prototype with another very-complete-looking game. The arrangement worked well until the light in the secret room started flashing on and off continually. Needle and Mical couldn't figure out what they were meant to do and poked their heads out - only to see that one of the invitees had discovered the secret switch and was trying to figure out what the damn thing did.

Luckily, no damage was done as the scam wasn't really a scam – Needle and Mical were demonstrating exactly what the Lynx would be capable of when finished and had simply wanted to show the console as close as possible to how it would work in its final form. But even so, if Sony calls you in to become an early development partner for the PlayStation 3, make sure you check behind the curtains before signing anything.

new console could only be developed using Amiga computers from his bitter enemy Commodore. Whatever his reasoning, it wasn't until the summer of 1989 that Atari finally showed off the new console. Following the fine Atari tradition of uncreative naming, it was unveiled as 'The Portable Color Entertainment System'. It had been three years since that initial lunchtime meeting - but in September 1989, and with a much cooler name, the console finally began appearing in US stores: The Atari Lynx had arrived.

Priced at just under US$200, the Lynx wasn't cheap - but then, despite the delays, it was still a seriously powerful piece of hardware. The original box proudly announced that the console fitted easily into the hands of "adults OR children". And while that's certainly true, at almost 11 inches long, 4 wide and 1.5 deep, the Lynx wasn't going to slip too comfortably into a shirt pocket. Besides its powerful games engine, the Lynx contained a few more neat features which made it stand out, like the option to flip the screen upside down, enabling left-handed players to use the console as comfortably as right handers. Unlike the GameBoy, the screen was also fully backlit, making play easy in the poorest lighting conditions, and could be used vertically for games more suited to long, narrow playfields (most notably, Klax). Developers and games players alike were impressed. Besides the Lynx itself, the package contained the highly acclaimed California Games, a carrying case, power adaptor and ComLynx cable to connect to other Lynxes. After years in gaming's wilderness it looked like Atari had a product that would create and then dominate a whole new section of the market, but it



Many Lynx titles included multiplayer support, allowing you to 'LynxUp' with like-minded mates

wasn't quite that simple. For all its strengths, the Lynx had some serious drawbacks.

That backlit screen looked great but drained batteries at an unforgivable speed. A set of six high-powered AA batteries bought just four hours of gaming (rechargeables managed only 90 minutes!). Atari released a battery pack which could be attached to a belt and provided

20 hours' worth of power from six D-sized batteries. But not many people wanted to walk around with six large batteries stuck to their waist.

Another problem was the Lynx's rather cheap finish. Jack Tramiel's Atari was famous for cutting every corner possible, and the Lynx was no exception. To save on production costs the Lynx was made out of cheap, transparent plastic and then painted grey. After long periods of play the paint would inevitably begin to rub off, leaving huge marks on a console people had paid around US$200 for, or in the UK, a whopping £200.

Atari's track record didn't help either – many retailers felt that Atari had proved an unreliable business partner in the past and refused to stock the new console. Even when willing retailers were found, Atari had difficulty in keeping up supply – in 1990, manufacturing targets were missed by 50% due to wrangling with Casio over the price of Lynx LCDs. All these things were significant but there was one more problem, one that had the potential to be truly fatal. The 18-month delay had cost Atari its head start because by 1989 Nintendo was joining the handheld race with the launch of the now-legendary GameBoy.

On the face of it, Atari had little to worry about. Nintendo's console was monochrome, powered by an inferior processor and lacked all the hardware-driven graphical effects that made the Lynx so impressive. But the battle was about more than powerful hardware. Nintendo's console was much cheaper and lighter than Atari's, was small enough to fit in a coat pocket, needed fewer batteries and could run much, much longer on a single set. Nintendo had the finances to market its product well and meet demand – even when people wanted a Lynx, often they could only find GameBoys. Perhaps most crucially of all, Nintendo had automatic licenses to the most popular NES games and its Tetris pack-in became the GameBoy's true killer title. While some of the early Lynx games were excellent, Atari had nothing to match the star appeal of Super Mario and Tetris.



Thanks to a steady supply of Master System ports and Mega Drive conversions, Sega's Game Gear effectively drove the last nail into the Lynx's coffin

The war begins

Though the first round of the handheld war went to Nintendo, Atari was far from done. It tried to bring some familiar names to the Lynx by releasing a series of first-class arcade conversions including Klax, Ms. Pac-Man and Rampage. It seemed to be working. The Lynx remained a long way behind the GameBoy but was gaining momentum. For once, Atari seemed to be capitalising on its successes. The Lynx was relaunched with a new look and 50% price cut (though now with no included game or accessories). It had been redesigned into a somewhat smaller, sleeker unit which was of a higher quality, but actually cheaper to manufacture. Battery life had been improved slightly and stereo sound added, plus there was now an option to turn off the screen while a game was paused, saving precious battery power. Taking full advantage of rising tensions with Iraq, Atari backed the relaunch with some great war-inspired games like Blue Lightning and Steel Talons. It scored a PR coup by sending 60 Lynxes to recreation centres used by US troops serving in the first Gulf War, taking every opportunity to remind people how great it was that the troops, all of whom could buy Lynxes at cost price, had easy access to American (rather than Japanese) gaming technology. Atari wasn't living up to its promise of killing the GameBoy, but did finally seem to be within striking distance of once more becoming a significant player in the games industry. The success didn't last, though, as another company was about to enter the handheld market; a company with greater resources than Atari could ever hope to draw on.

Defeat and surrender

1991 saw the launch of Sega's Game Gear. It bested the GameBoy technically, though it was no match for the Lynx. But like Nintendo, Sega had a large back catalogue of recent hits to help sell its console. Atari struggled to keep up. The quality of Lynx releases remained



The smaller, sleeker, cheaper Lynx 2 gave the system a much-needed shove, but the GameBoy had already sewn up the handheld market

"1991 saw the launch of Sega's Game Gear. It bested the GameBoy technically, though it was no match for the Lynx. But like Nintendo, Sega had a large back catalogue of recent hits to help sell its console. Atari struggled to keep up"

high but Atari, who had been unable to persuade third-party developers to work on Lynx titles, couldn't match the marketing or release schedules of Sega and Nintendo. Gradually, the Game Gear overtook the Lynx as distant second to the GameBoy and it became clear that Atari's machine wasn't going to survive. Advertising was suspended as Atari began abandoning the Lynx in order to concentrate all efforts on developing the new full-size console that would turn out to be its final games machine. Originally there were hopes that the Lynx would be boosted by an ability to interact with the new console in some games, but by the time the new machine was ready, the Lynx had already been forgotten by most. Production ceased in 1995.

Although the Lynx was designed in 1986, it wasn't until 2001 that a dedicated handheld was released which unambiguously outperformed it. The Lynx offered Atari a huge advantage over the competition which it was never able to exploit. When people were most excited about the Lynx, Atari couldn't supply it. And when people came looking for handheld versions of the most popular games, none of them were Atari titles. Instead, almost all of us chose the GameBoy as our first handheld. Why? Partly battery life, partly size, but most of all, just like iPods today, it didn't much matter whether it was the best of its type or not – the GameBoy was widely available, cleverly marketed and extremely fashionable. Without the resources to build a similar profile, Atari never stood a chance.



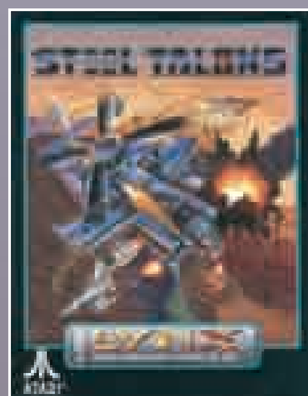
The were around 100 games released for the Lynx, so it wouldn't be too difficult to collect them all. These four carts, though, are fairly rare and would take some tracking down

›Lynx trivia

The top ten things your probably didn't know about the Atari Lynx (even if you've read the rest of the article)

10. The system's creators considered the sprite engine they created for the Lynx to be up to 30 times more powerful than the one they created for the Amiga.

9. The Lynx game Steel Talons inspired Atari to file a patent relating to helicopter games which "include a user-selectable zoom, horizontal and vertical ground avoidance, and an autorotation model."



8. Though no game ever took full advantage of it, the Lynx's hardware allows up to 16 Lynxes to be connected together for the ultimate in multiplayer gaming.

7. While its CPU is the same type as found in the C64, the Lynx's version runs four times as fast (and has a range of powerful custom chips to call upon).

6. After supplying Lynxes to troops serving in the first Gulf War, a marine wrote to Atari asking if he could have a sun visor to make it easier to play Lynx games in the desert.



5. The Lynx's serial port is directly compatible with MIDI data, so it's perfectly possible to attach and read data from a drum machine or synthesizer. Why you'd want to is another matter...

4. In terms of clock speed, the Lynx ran faster than any other videogame system that had ever been made at the time, including full-sized consoles.

3. Such were Atari's dwindling manufacturing capabilities that the Lynx was initially only launched in New York and Los Angeles.

2. Though nobody knows for sure, the discovery of pink and white pastel-coloured Lynx prototypes may suggest that Atari was considering launching 'his and hers' versions of the handheld.



1. The Lynx is famed for being oversized, but it never needed to be. The concept of handheld consoles was new, so focus groups were organised to see what size people thought they should be. They saw big prototypes and small prototypes, and unanimously preferred the larger ones! So the Lynx was designed to be much bigger than was necessary because that's what the public seemed to want. Ironically, it was its size that later put many buyers off.

>Homebrew interview



Like many of Atari's later products, games developers were only just discovering the Lynx's power when it was written off commercially. So once again it's fallen to homebrewers to breathe new life into the machine and discover what the hardware is really capable of. Carl Forhan is at the forefront of that effort, having rescued and finished some titles which never saw their commercial release, as well as writing some impressive original titles. Carl creates his games under the label Songbird Productions and took the time to talk to us about all things Lynx-related.

Retro Gamer: When did you first discover the Atari Lynx?

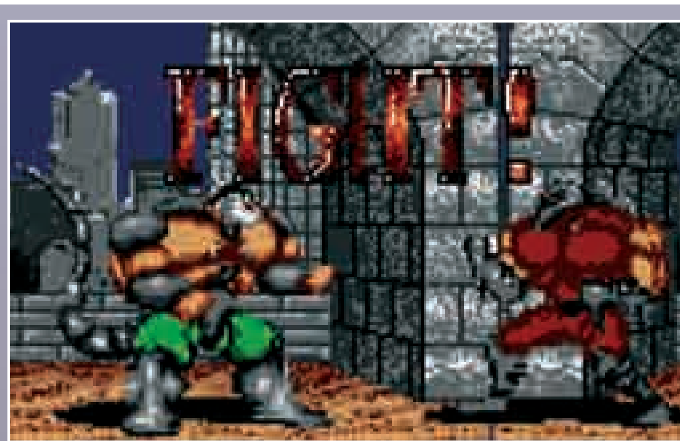
Carl Forhan: I actually had no idea Atari was still producing games consoles after the 5200 until I ran across some Internet sites talking about the Lynx around 1994. I bought one in about 94 or 95, but Atari was basically done with the Lynx by then, except for a couple of retro releases around 1997.

RG: By the time Songbird came along, the Lynx had been abandoned commercially for quite some time, and you never owned one when it was still supported. So why did you decide to start writing games for what most considered to be a dead machine?

CF: It's definitely just the love of the hobby for me. I've been an Atari fan since the 2600 was released over 25 years ago, and the Lynx is such a cool and easy-to-use piece of hardware. I hated to see it die before its time. Another attraction is that on an older system like the Lynx it's still feasible for one person to develop an entire game. I usually look for help on the graphics, but contrast this to contemporary systems where it's nothing to have 20 people working on a single game. That's not practical for something with only a tiny niche of support.

RG: How difficult is it to develop for the Lynx?

CF: Lynx development is becoming easier all the time, thanks to some really good C compiler support and the availability of a near-perfect Windows emulator called Handy (**http://homepage.ntlworld.com/dystopia**). I do own an Amiga, which was the original developer station for the Lynx. Having said that, I rarely fire it up any more, since WinUAE is such a good emulator for the Amiga. The Lynx chipset itself seems very stable and robust. There aren't many fatal flaws you have to work around, and it really is a short process to get a couple of sprites moving on the screen.



Look out for Carl's upcoming version of the 'lost' one-on-one fighter Ultravore

RG: If someone wanted to take up programming the Lynx, where should they start?

CF: Unless you're already an assembly expert, I'd recommend writing some small programs in C using CC65 (**http://cc65.org**), then testing with Handy. There's absolutely no cost to do that much, and sites such as **www.geocities.com/SiliconValley/Byte/4242/lynx** have some examples of source code you can use to start your own game project.

RG: What kind of volume of trade does Songbird do on original Lynx releases?

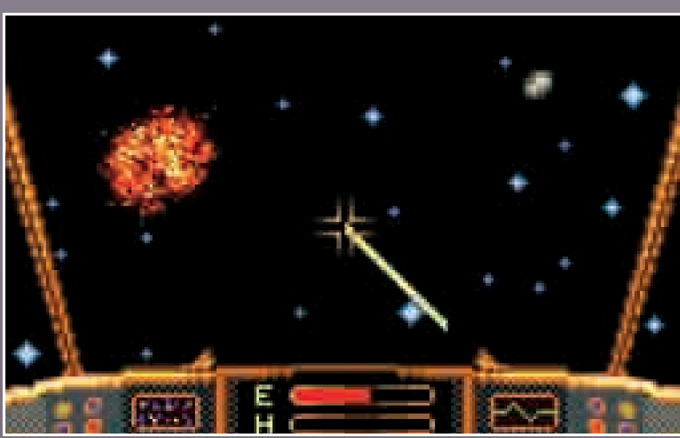
CF: It's definitely a small market these days. I'm happy if I sell one hundred copies of a new game. I wish it was more like five hundred, but I've never come close to that...

RG: If you had to select one project to represent the best of all the Lynx work you've been involved in, which would it be?

CF: I'm very proud of Remnant since that's the most complicated game I wrote start to finish. It was the first game I wrote that occupied more space in ROM than RAM, so I had to learn how to swap chunks in and out. On the other end of the spectrum, I'm really proud of CyberVirus since that was a 'lost' game that had been on everyone's wish list, and I'm glad I was able to rescue the game and add some new features and missions.

RG: What are your plans for the future of Songbird and Lynx gaming?

CF: I have two Lynx games on the horizon – one is Ultravore which is another 'lost' game that needs to be finished up, and the other is a port of a J2ME game I wrote about two years ago for some mobile phones. People can check on my latest projects and catalogue at **http://songbird-productions.com**.





Remnant (left) and CyberVirus, two of Carl's most popular Lynx homebrew titles

›Eight great games

Considering Atari's limited resources and lack of third-party developer support, the Lynx offered a surprisingly wide range of quality arcade conversions and original releases. Here are eight well worth seeking out

Rampart



It's hard to classify this medieval war game. You'll need to plan strategically when choosing your home castle and placing the cannons. Then it's pure shoot-em-up as combat commences. After the battle, when it's time to repair your castle, the gameplay becomes Tetris-like. But the classification's not important – all that matters is that this original game is highly playable, slickly presented and well worth checking out. If you can connect to another Lynx for a two-player game, all the better.

Chip's Challenge



Melinda's your dream girl, and she's agreed to let you join her computer club, as long as you first prove yourself worthy by risking your life against bombs, fire, traps and more – a small price for finding a lady who appreciates how sexy a hobby computing is. Though the story's flimsy, the game's anything but. 144 mazes to puzzle through – moving blocks, setting traps, avoiding danger. It's not about high scores, as you have infinite lives. It's about being smart enough to complete all the levels, and it's fiendishly addictive.

Blue Lightning



The war isn't going well for the allies. In fact, it's going so badly that you're the only person left who can test the top secret 'Blue Lightning' plane – that test being to see whether you can use it to single-handedly win the war. The most famous game of this type, Afterburner, never appeared on the Lynx, but it's no big loss as Blue Lighting is superb. The fast-paced action, with the speed and detail of the 3D landscape, make this a great shoot-em-up which deserved to sell thousands of Lynxes.

BattleWheels



Countless games have taught us that in the future sport will be all about killing people. BattleWheels is no exception. It's 2019 and you're taking part in a life-jeopardising battle in car and on foot. It isn't the easiest game to familiarise yourself with, but its sheer depth makes learning it worthwhile. Excellent graphics, outstanding sound and the opportunity to link up to six consoles for multi-player action should put this right at the top of your Lynx shopping list.

Klax



Comparisons to Tetris are inescapable – but rather than repeat that game, Klax takes the falling-block concept and creates something original. There's more variety than in Tetris – the basic aim is to line up three similarly coloured blocks in a row, but specific missions such as 'Build a large X' or 'Get three diagonals' keep the gameplay fresh. One reason the Lynx fared so poorly against the GameBoy was that it didn't have Tetris. Big deal. It had Klax. And Klax is just as good.

RoadBlasters



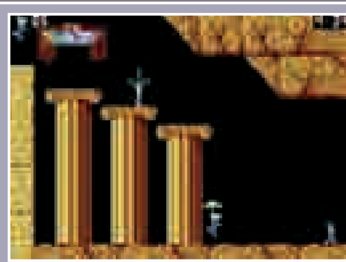
The world's been devastated by a nuclear holocaust, but have the few remaining survivors seen the folly of war and made up? Of course not, which is why you're at the wheel of a heavily armed car, ready to destroy everyone who isn't you. Driving games have always been popular. Violent games have always been popular. RoadBlasters takes both and gives you a driving game where you can spend your spare time killing the competition. Very fast and extremely playable.

Paperboy



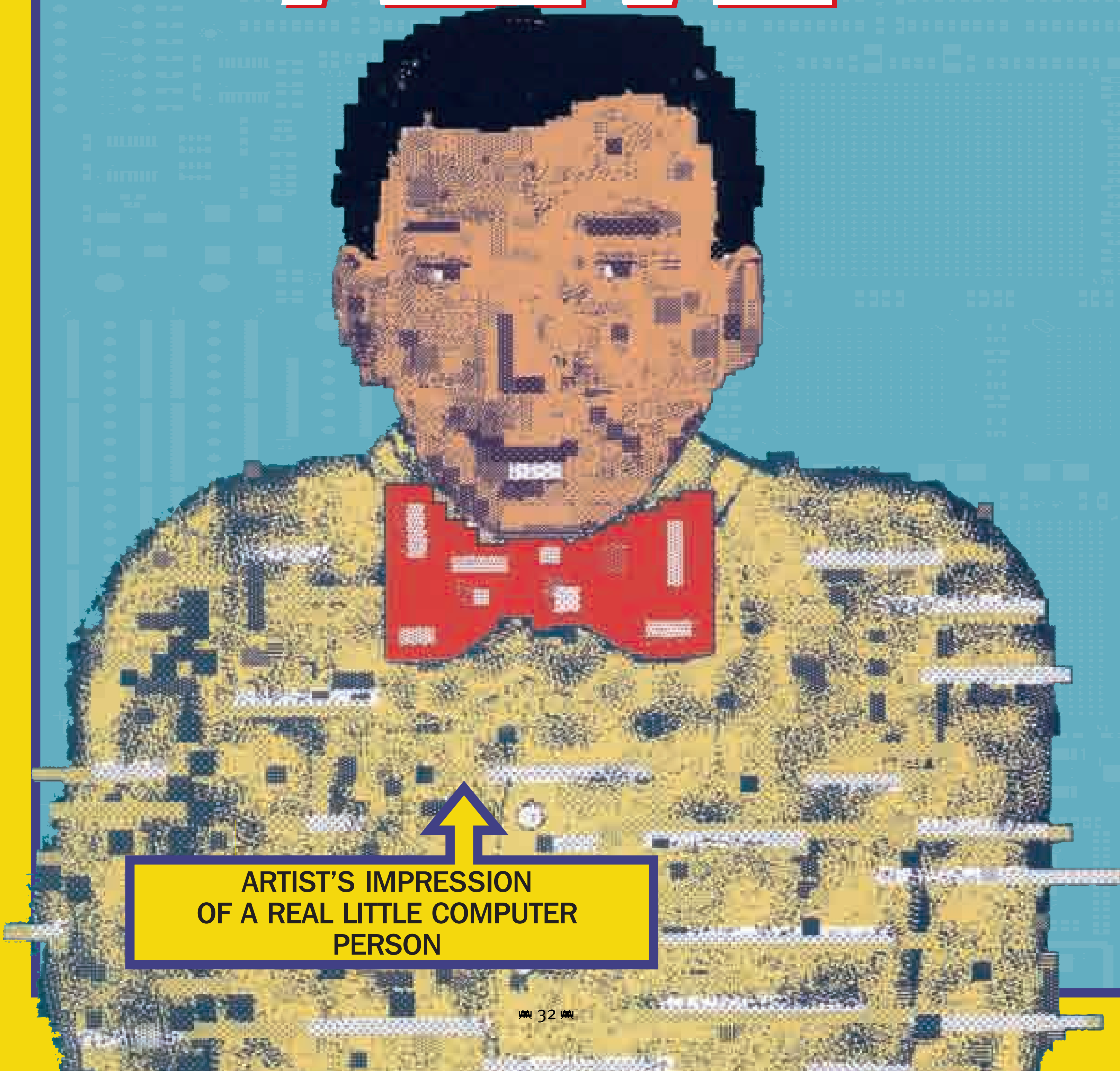
It might look like sleepy suburbia, but this is no ordinary neighbourhood. It's home to the rudest people, the most reckless drivers and the stupidest pedestrians you'll ever see. But, when you're the world's greatest paperboy, it's all in a day's work as you faithfully deliver the paper to your customers (and smash the windows of those who don't subscribe). Paperboy appeared on countless systems but never felt more comfortable than on the Lynx – it's pretty, it's simple and it's fun.

Lemmings



The fact that Lemmings was one of the final commercial Lynx releases is sad. Not because it's a poor game, but because it showed just how great this console could be. It's a puzzle game where you need to guide some lemmings safely past a number of obstacles towards the exit. It sounds like nothing, but plays like nothing else. With excellent sound and wonderful graphics (especially the cartoon-style opening sequence), Lemmings is a fitting epitaph for the Atari Lynx – but one which came much too soon.

VIRTUALLY ALIVE



WHILE THE SIMS AND ITS VARIOUS SEQUELS SELL IN THEIR MILLIONS AND HAVE TAKEN UP PERMANENT RESIDENCE IN THE CHARTS, THE FIRST TRUE PROGRAM TO SIMULATE HUMAN LIFE WAS ACTIVISION'S LITTLE COMPUTER PEOPLE, RELEASED ON THE COMMODORE 64 IN 1985. **KIM WILD** REFLECTS ON THE ORIGINAL GOD GAME, AND TALKS TO DAVID CRANE, ITS DIVINE CREATOR

"Dear fellow researcher," began the game blurb. "We're happy to welcome you to the Activision Little Computer People Research Group. We've suspected for quite some time that there was something living inside most computers. But we didn't know who, what or how many there were. After years of research, hard work and creative speculation, we invented what finally became the turning point in this arduous investigation: House-On-A-Disk..."

I vividly remember the first time I presented the Little Computer Person living inside my C64 with his very own House-On-A-Disk. I was absolutely transfixed with this living being who seemed to have a personality and way of life unlike anything I'd seen previously. The game became something of an obsession and it would be common to leave the machine on for days at a time to keep tabs on what my LCP would do next. My fascination with him became infectious, with family and friends also becoming absorbed by the antics of the seemingly intelligent character and his dog. But eyebrows were raised when he only took a single shower during his lifetime, despite all my best attempts to coax him into doing so.

For those who have never experienced the charm of Little Computer People, the game was incredibly innovative for its time, offering a virtual-life program that pre-dates The Sims by 15 years. Loading up the program would reveal an empty house, soon entered by a man and his dog. While the LCP would have his own personality and go about his own routine, you'd still need to make sure he was well looked-after. The larder had to be kept stocked with food and water, and dog-food deliveries needed to be organised. You were also required to look after your LCP's emotional needs by encouraging him to make phone calls, leaving presents in the form of books and records, 'petting him' in his favourite armchair and even playing basic card games. My guy loved nothing more than exercising in his front room, playing classical pieces on his piano (all in-game music was created by Russell Lieblich) and playing games on his tiny computer. Failure to look after your LCP would lead to sickness – he'd turn a shade of green and spend most hours lying in bed. Constant neglect without food or water would result in the LCP's untimely demise, which meant being left with an eerily empty house! But at the time, all was not lost as Activision created a special machine for this exact purpose. "You could send your broken disk in for the staff to repair," recalls David Crane. "The machine read the LCP's 'brain' parameters, including his look, personality, and preferences and wrote them to a factory-new diskette. Many LCPs were restored in the 'Activision Hospital' for grateful users."

Queer as folk

One of the main selling points of LCP was the promise of a unique person on every single copy produced and this was genuinely implemented by the programmers. Activision personalised every disk during manufacturing and Crane created unique personality and mood parameters to make each person truly different. Every disk was given a unique serial number which specified all the LCP's personality factors (the character's 'brain' was stored in a 256-byte block on the disk). An Activision staffer was given the job of creating at least 10 variations of each thought from anger, sadness, starvation and near-death to concerns of food supplies. The letters from the LCP to the player would then be based on the 100+ phrases programmed into the system corresponding with the personality type and mood of the character at that particular time.

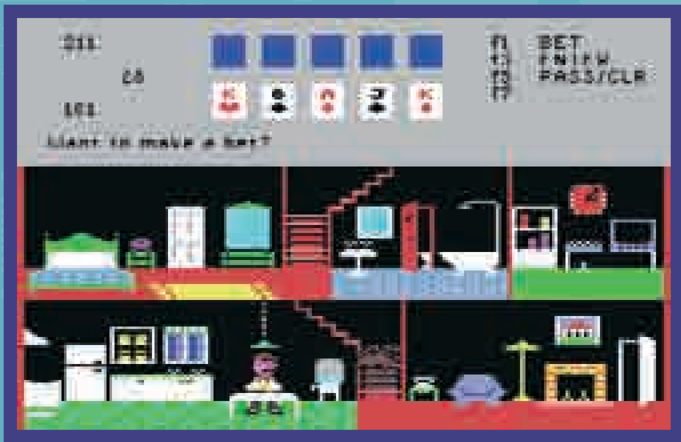
"The result was awesome," says Crane. "Without ever seeming to repeat himself, the LCP would convey his needs, desires, and thoughts to his owner." The intelligence of the programming ensured that it became hard to predict what would happen next – even for the game's creator. "It was so complex that I was as much in the dark as anyone as to what he'd do next."

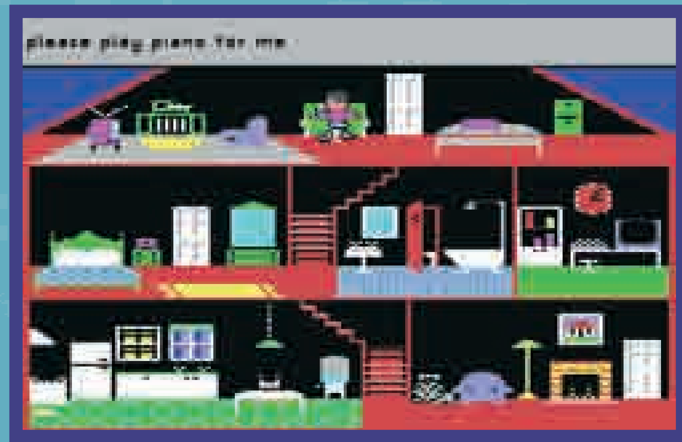
In order to develop more of a relationship between the player and the LCP, a communication system was implemented so that it was possible to type in commands or comments. Sentences could be in the form of questions, suggestions or requests which evoked various reactions, assuming he listened to you at all. The basic card games (consisting of Card War, Anagrams and 5-Card Draw Poker) could be played with him which further enhanced the illusion of life. But the card games nearly didn't make it, as Crane explains: "The card game logic was almost lost due to lack of time. I'd always wanted to play games with the guys, but giving them interactivity and a brain took all the time I had.





Once in the house, your LCP takes a little time to explore his strange new surroundings





Entertain your LCP with a card game and he may be more receptive to your piano playing requests

›Life on other planets

Although David Crane has no knowledge of versions other than the C64 and Amiga, the game did indeed appear on a number of other formats, with the Apple II, Atari ST, Amstrad CPC and Spectrum receiving LCP in some form. Atari ST magazine *ANTIC* reviewed LCP in February 1987 giving it 86 out of 100. *Your Sinclair* reviewed the Spectrum version in April 1987 and awarded it 9/10, with *Sinclair User* offering up the same score. *Crash* magazine was less enthralled, marking the game 5/10 for lacking long-term appeal.

LCP has also appeared on the PC as part of the Activision C64 15 Pack. As the title suggests, this is a collection of classic C64 Activision games (including Park Patrol, Hacker and LCP) running under emulation. One advantage with this disc is the added ability to generate a new LCP, so should you kill your little friend off (how could you!), you can start again without being left with a useless empty house.



Fortunately, Steve Cartwright was between games near the end of the LCP development. I took time to put a card-playing interface into the game and gave Steve some parameters to work with. He managed to code the card games in a few weeks and we were then able to interface his code into the final product."

Signs of life

So how did this innovative program come about? "Rich Gold, described as an engineer, artist, designer, writer and cartoonist, had the idea to create what he called a 'Pet Person', along the lines of the 'Pet Rock' of the 1970s," recalls Crane. "This was to be a non-interactive, fishbowl view into the life of an artificial life form that went about his daily activities indifferent to the human viewer. Rich raised some development capital and hired an east-coast developer, James Wickstead Design Associates, to realise this concept. The programmers and designers at Wickstead, many of whom have gone on to make other contributions in the videogame business, refined the concept and developed the look and feel of the Pet Person as well as the house he lived in. At this point, Rich tried to find a publisher for the Pet Person. He had no takers. The product was not deemed marketable, and no publisher wanted it. Activision's President, Jim Levy, thought there was enough of interest in the concept to bring it to me for an opinion. What I saw was not a Pet Rock, but the beginnings of an interactive simulated life form. I offered to take the project to that next level. Activision bought the project, not as a finished game for publishing, but as a starting point on the first interactive Sims-type product."

Initially released on cassette tape for the Commodore 64, the superior disk version soon followed and was entitled The Little Computer People Discovery Kit. This included The Little Computer People House-On-A-Disk Research Software (a copy of the original two-and-a-half-storey house used by the research team), The Computer Owner's Guide to Care of and Communication with Little Computer People book containing instructions for your new friend, a special edition of *Modern Computer People Magazine* (a full-colour publication on the culture of LCP plus their habits), and an authroised Deed of



The Amiga version looked great, but the core game remained largely the same

Ownership for your house. This kind of attention to detail really helped to develop the personalities of the characters. Crane agrees: "As the project neared completion, some very creative people in the marketing and sales side of the business developed the 'cover story' about the miraculous discovery of little people living in computers everywhere. That story was the finishing touch that tied all the development work into a neat little package."

Following the success of the C64 version (*Zzap!64* magazine awarded the game an unprecedented 97%), the game appeared on the Commodore Amiga in 1987. The 16-bit version offered very few enhancements other than a cosmetic overhaul, but was programmed with additions in mind. Much like the C64 version, each disk was created to spawn one unique LCP. "It was during the Amiga development that we brainstormed many of the future enhancements we wanted to add later," explains Crane, "including gene-implemented program hooks that would allow these future add-ons to be imported into his game. It's a shame we were never able to follow up on some of those ideas."

LCP sold well enough, but the huge amount of money ploughed into the product during development (and the cost of acquiring the property in the first place) meant that sequels were not a financial reality. The developers had planned to sell new houses as add-ons, and there was even the possibility of an entire apartment complex of Little Computer People all interacting with each other, though none of these additions ever materialised.

The idea of add-ons to expand the lifespan of a game is very similar to what we see today with The Sims and its numerous expansion packs, which just goes to prove how far ahead of its time Little Computer People really was. But how does Crane feel about the idea that Little Computer People spawned The Sims?

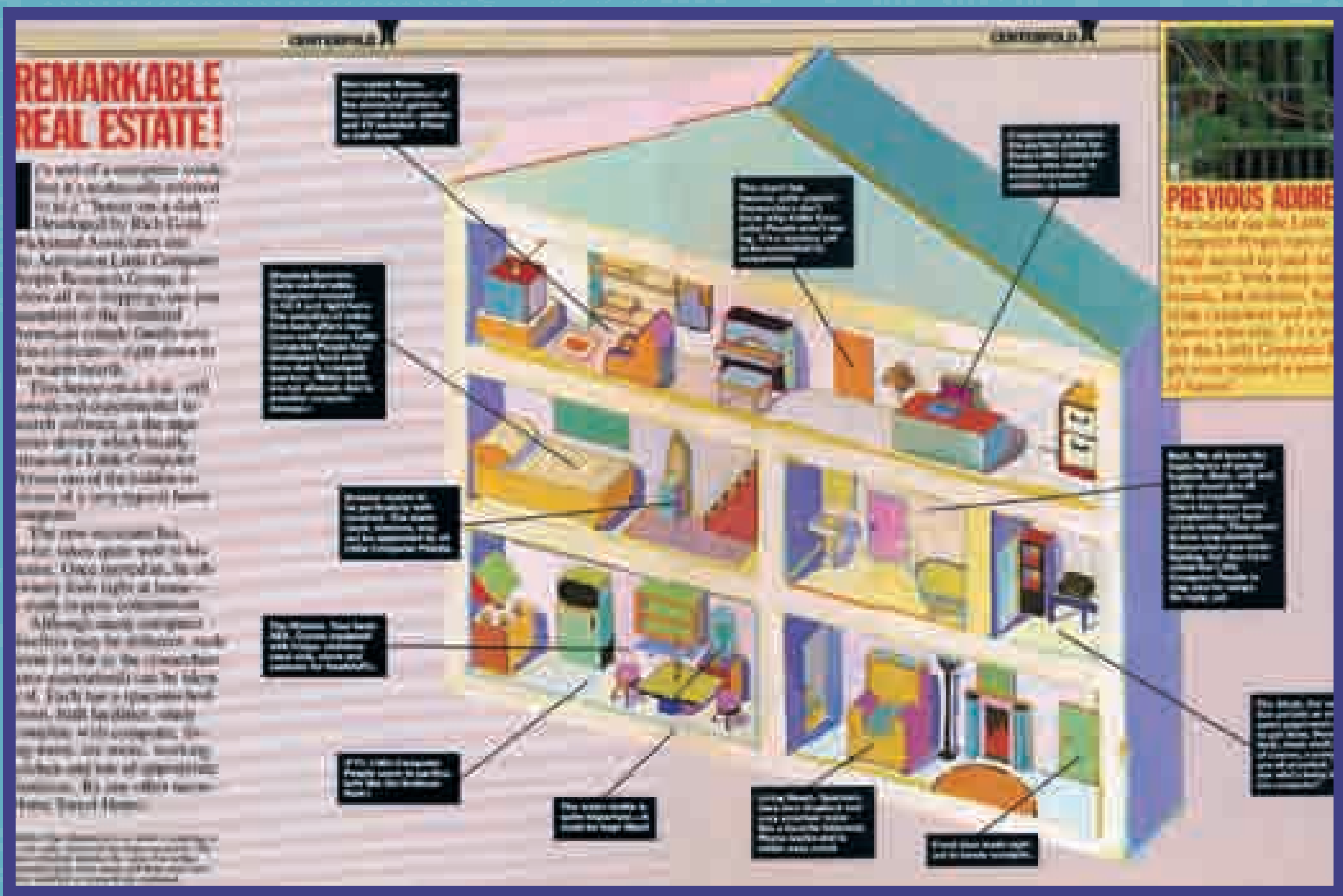
"Well, I'm often asked if I feel I created the Sims genre with LCP. The fact is that as a founder of Activision, the first third-party developer of videogame cartridges, I was a part of the founding of the entire third-party videogame business. Almost everything we touched in those days could be construed as a precursor to something on the market today. So rather than go there, I simply acknowledge that I took the first baby steps toward the simulation genre when I added human-like interactivity to Little Computer People."

Agenda bender

Like many games, there are always features that never make it into the final product due to time or technical restraints. Were there any such issues with LCP? "There were many interesting tasks surrounding his going to bed (bathing, changing, sleeping) and his getting up in the morning (teeth brushing, dressing, etc). In a moment of weakness I decided to have the LCP live on a six-hour schedule, so the player could enjoy these animations during the day. After the game was released I reconsidered – it would have been much cooler to have the guy live on *your* schedule. If you booted him up at night he would be sleeping. If you booted him up in the morning he might be brushing his teeth while you're brushing yours, and so on. Wouldn't it have been fun if he scolded you for waking him up in the middle of the night, and spent the next whole day grumpy from lack of sleep?"

As for my character, why wouldn't he ever take a shower even upon command? "You only went wrong in trying to 'get him to do' something. One of the most human qualities I gave the LCP was the ability to ignore you. The state of the art of English language parsers in gaming at that time was the text adventure game (like Zork). In these games you could give a verb/noun command such as: Kill Dragon. If the game understood the command it would respond. If not it would do nothing. So it didn't take long for a player to learn the game's entire vocabulary. In your case, your LCP was probably a very messy personality who felt he needed only a yearly shower, took it soon after moving in, and was not compelled – either by need, desire, or your prodding – to shower again for a long time."

Thank God we don't have smell-o-vision.



Next Level Gaming:

SEGA MEGA DRIVE 32X



After failing to hit the bullseye with the Mega-CD, Sega went back to the drawing board. The result was the 32X, another add-on device designed to beef up the ageing Mega Drive, giving it a full 32 bits of power. Should you have been 32Xing? Aaron Birch finds out…

With the Mega-CD failing to revolutionise the console market as planned, Sega desperately needed to find a way of combating the strong-selling SNES. Despite arriving late, the Nintendo system was closing in fast on the Mega Drive, and Sega was in danger of losing its controlling position. Something needed to be done, and soon.

The production team's goal was simple (in theory at least) – to create a system more powerful than the SNES. In fact, a system boasting twice the power of the Nintendo machine would be very nice indeed. And so, with that in mind, the designers started work on a 32-bit console. This new system would be cartridge-based, ditching the CD format that had burned Sega so badly, and would be little more than an enhanced Mega Drive (codenamed Project Neptune). But this would change drastically during development, and it was ultimately decided it would be a much better idea to create an add-on for the existing Mega Drive, rather than a new standalone console. After all, punters would surely prefer to buy a cheap upgrade over an expensive new system, wouldn't they?

After much deliberation and many late-night board meetings, Project Mars was conceived. The final unit, branded the 32X, was designed to fit into the cartridge slot of the Mega Drive, piggyback-style, giving the console a mighty boost of power. Thanks to the addition of twin 32-bit RISC CPUs, polygonal graphic capabilities, additional PCM audio and 512KB on-board memory, the system was now much more powerful, with around 40 times the processing power of the bare-bones Mega Drive (if the adverts were to be believed). What's more, the 32X was also able to enhance the capabilities of the Mega-CD. All this from an ugly plastic mushroom…

Gaming shame

The 32X was indeed a promising system, and prior to the unit's launch Sega announced that many developers had signed up for the ride. Giants such as Konami, Capcom, Acclaim and Domark were interested in developing titles for the new platform, and the proposed launch titles were very exciting. Games like Virtua Racing, Star Wars Arcade, Super Space Harrier, Super Afterburner, and even the PC classic Doom were announced. Sega's usual witty advertising campaigns fired up, and the marketing machine rolled on at full pelt. But, during all this, people couldn't help but



Some of the early games to grace the 32X. Clockwise from top left: Star Wars Arcade, Doom, Virtua Racer and Virtua Fighter





Compare and contrast – Mortal Kombat II on the Mega Drive (left) and 32X

wonder... where was Sonic? No Sonic game was evident on the new system, and as the Sega mascot was such a crowd puller, people asked why he wasn't on the launch bill. Sega promptly silenced any concerns and informed fans of Sonic the Hedgehog 4. This would be a totally new departure for Sonic – a full 3D experience with lush visuals. Some images were even leaked to the public, further exciting Sega's followers.

When the 32X eventually arrived, it shipped with a handful of launch titles including Doom, Metal Head, Virtual Racing Deluxe and Star Wars Arcade. Promising games indeed, but the excitement would only last for a short time. As Virtua Racing was also available on the Mega Drive (albeit in a streamlined, less impressive form), this took some of the shine from the 32X version, and the potential killer app that was Doom was bug-ridden and had to be played in an itsy-bitsy window even a low-end 486 PC would snigger at. But Star Wars Arcade was excellent and a definite bonus for the system.

What about the other launch titles? Basically, they didn't arrive in time for the unit's launch. And when other games did arrive, things didn't really improve. Most games were woefully short of their '32 times more powerful' claim, and very few Mega-CD 32X titles made it onto the market, further damaging the already-stricken CD unit.

It's wasn't all doom and gloom, though, and there were a few memorable titles. The 32X version of Mortal Kombat II was much more faithful to the arcade original than the standard Mega Drive version, with a proper intro, speech and more detailed graphics. But the game itself was pretty much the same. Even the poor music from the 16-bit version was still evident in the 'improved' edition.

Virtua Fighter was another of Sega's bit hitters and the 32X reproduced the arcade version very well, if a little pixellated and slow. Still, all the characters and stages were included, and it was an excellent showcase of the 32X's power. Another good advert for the system was BC Racers, a Mario Kart wannabe (featuring Chuck Rock and family) that utilised the enhanced sprite-handling capabilities of the unit. FIFA 96 was also impressive, and boasted rotating camera angles and improved graphics over the Mega Drive original. The actual game engine was also tweaked, resulting in a better interpretation of the beautiful game. And, it was only released in Europe too, making it something of a special title, and a little more collectable than most.

The promised versions of Space Harrier and Afterburner duly arrived, and, as promised, were virtually arcade-perfect. Both were infinitely better than the Space Harrier II and After Burner II titles that had already appeared on the Mega Drive, but at a time when Sega wanted to show how powerful its new toy was, these crusty old arcade titles were just too basic to make anyone stand up and shout 'Wow!'

Another bizarre release for the 32X was Blackthorne (also called Blackhawk). This Delphine-inspired platform adventure was more than a little similar to Flashback and saw you as a shotgun-toting hero fighting against an evil army of Orcs. The game had previously appeared on the SNES, but the 32X version





It may have been *sans* Sonic, and not quite what people were expecting, but Knuckles Chaotix was still a very enjoyable spin-off

had improved graphics and slightly better audio.

Following these brief distractions, people started to remember Sega's big promise – Sonic the Hedgehog 4. This was surely going to be the 32X's killer app, a game that could do for the system what the original did for the Mega Drive. And with the promise of a 3D adventure, people just couldn't wait. But wait they would… and wait… and wait.

In fact, in a rather shocking turn of events, Sonic never made it to the 32X. That's not to say the licence missed the 32X completely, though. Realising that Sonic was shunning his fans and wanting to make things right, the hog's co-star Knuckles jumped onto the 32-bit scene with a new friend in tow – literally. Kunckles Chaotix was a Sonic game, only without Sonic, and it was 2D, not the much-hyped 3D adventure people had been promised. This no doubt put a lot of people off, but it really shouldn't have, as the game was actually one of the more interesting and enjoyable Sonic-related titles. As Knuckles, you befriended a new character called Chaotix. This purple beastie was bound to Knuckles by an invisible elastic band of sorts. Using the two interconnected buddies, you had to work your way through puzzle-filled levels, using the springy bonds to catapult Knuckles and Chaotix up walls, over jumps and more. Switches needed to be pressed by both characters, and there were plenty of special graphical effects on show.

Saturn rising

With Sonic MIA, and no real big hitters available for the system, the 32X was already on the way to the gaming scrapyard. This situation was only worsened by the rumours of several new systems soon to arrive on the scene, including Sega's own Saturn, which didn't exactly endear Sega to the loyal fans who'd already shelled out for the 32X. The gaming public started to lose faith in Sega, and the company was seemingly happy to go on about its business, ignoring its all-important consumer base. This was compounded by inter-departmental squabbling, with Sega Japan constantly thrusting the Saturn to the front of its priorities. Because of this, the 32X was practically dead in the water long before it was taken off the shelves. Game releases were thin on the ground, and with the ominous Sony PlayStation already being hinted at in the press, the days of the Mega Drive were well and truly over.

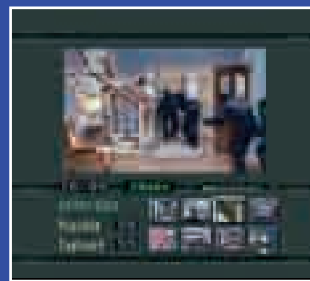
Further games were released, with Spider-Man: The Web of Fire being the last American 32X release. On a par with the Mega-CD version of Spider-Man (some would say it's even better), it was a fitting title for the US market to end on. Over in Europe, the 32X's last release was DarkXide, a 3D space-combat title programmed by David 'Elite' Braben and featuring some impressive visuals. It's also worth a respectable amount of money to collectors (around £150-200), as it was only released in Europe. But sadly, the game itself was little more than a straightforward blaster, and certainly not comparable to Star Wars Arcade.

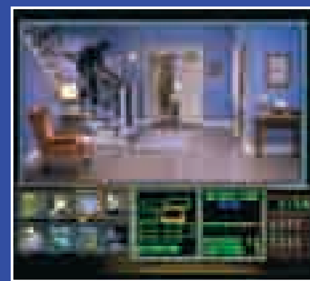
So, almost as fast as it had arrived, the 32X was royally ditched by fans. Of the entire production run (around 500,000), only two thirds of the consoles were sold. As with the Mega-CD, the key reason for the 32X's downfall was the lack of decent software support. There were simply not enough good games for the system, and hardly any of them really produced 32-bit performance. Many games were mere cosmetic updates, and some were so poor they defied belief. Add to that Sega's own people arguing over projects and the lack of a Sonic title, it's no surprise that the 32X was doomed from the very beginning. Not only was the 32X under-supported but it was also overpriced – £150 for an add-on was simply too steep. Rubbing even more salt into the wounds, the console came packed with no games, and many owners found they needed to buy a new AV cable in order to use the 32X with their Mega Drives.

Was it worth it? No, not by a long shot. Even standout games like Star Wars Arcade and Knuckles Chaotix couldn't save it, and only the most single-minded, hardcore Sega fans should have bothered.

›Extra seedy

As we've mentioned briefly, the 32X didn't only boost the power of the Mega Drive, but could also be used in tandem with the Mega-CD. Only a few 32X Mega-CD titles made it out, though, and these included Night Trap, Fahrenheit, Corpse Killer, Slam City with Scottie Pippen, Supreme Warrior and Wire Head. As you may have already guessed from the list of games, the extra power of the 32X was employed to improve the quality of FMV movies, producing a clearer, crisper, larger image. The actual games themselves were hardly altered, with a few tweaks here and there. Again, it was something of a wasted opportunity.





The 'controversial' Night Trap on the Mega-CD (left), and the enhanced 32X version





Thanks to Andy at Console Passion for the 32x image

ROBOCOP

THE FUTURE OF FILM LICENCES



To many, *Robocop* is a masterpiece of modern cinema, blending trendy 80s ultra-violence with stinging social commentary. Ironically, considering that the film takes wide swings at consumer culture and corporate greed, *Robocop* spawned numerous spin-offs – action figures, comics, cartoons, pinball tables and even a theme-park ride. But most will remember Ocean's videogame, as it dominated the software charts throughout 1989. *Retro Gamer* revisits one of the most successful movie licences ever

The 1987 cinema release of *Robocop* probably passed you by. Justifiably rated 18 for strong bloody violence, your average *Retro Gamer* reader was probably still in full-time education when it opened, and unless your were an early developer with a poor excuse for a moustache, there was very little chance of seeing the film on the big screen. And besides, would you really want to? Burdened with one of the most stupid titles in movie history, it sounded like something Troma would churn out. *The Running Man* looked much better, and that even had Arnie in it.

But then the film was released on video and it seemed to catch fire over night. Suddenly every schoolboy wanted to see this violent sci-fi movie. Some of the older kids in the fifth year (you know, the ones who rode to school on a 50CC) had seen it and were thrilling youngsters with tales of toxic waste meltdowns and exploding extremities. Copies on tape were passed about, allowing the under age to finally see what all the fuss was about. *Robocop* was suddenly massive.

The film's cinema release certainly hadn't passed Ocean by. Not one to miss a potential lucrative movie licence, the Brit publisher had snapped up the rights to *Robocop* early on. It could be argued that Ocean simply acquired any movie rights that were in the offing,



If you couldn't get to see the 18-rated movie, Ocean's phenomenally successful videogame was the next best thing



In a clever piece of cross promotion, Ocean's game promoted the video release, and the video featured a trailer for the game

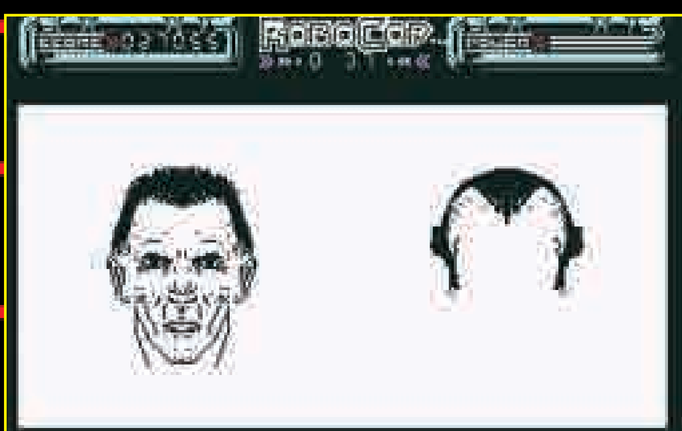
and just struck lucky with *Robocop*, the year's biggest sleeper hit. Whichever way you look at it, Ocean's timing was absolutely impeccable. Tying in with the video release, the Robocop game hit the major 8-bit machines at precisely the right time. Having seen the film on video (or at least heard all about it, scene by scene, from an excitable friend), kids naturally wanted to jump in Robo's metal boots and clean up the mean streets of Old Detroit themselves. The game immediately hit the number one spot and stayed there for the best part of a year.

Your move, creep

Robocop also invaded the arcades, courtesy of Data East. In a somewhat bizarre twist, Data East discovered that Ocean had already attained the rights to *Robocop*. As a result, Data East had to sub-license the rights from Ocean, then Ocean was allowed to plunder the excellent arcade game for its home versions.

The arcade game (designed by Yoshiyuki Urushibara) was a side-scrolling shoot-em-up, with a couple of shooting-gallery sub-games thrown in for good measure. Ocean's 8-bit versions loosely followed this successful template, mixing a series of 'on patrol' shooting levels with first-person scenes, puzzle-solving sections and the requisite boss battles. It worked so well that pretty much every subsequent Ocean film licence would follow the same formula, though many would argue that Robocop did it first and did it best.

Ocean's game appeared on a variety of computers and consoles, so whichever machine you had tucked beneath your telly, there was almost certainly a version available for it. But which were closest to the coin-op, and which best recreated the feel and style of the movie that kick-started the whole craze? Robert Mellor finds out over the page ›››



Ocean added a photofit scene, in which you had to quickly ID Robo's killers before the time ran out

›Stainless sequels

Having made back its limited US$13 million budget many times over, a sequel to the original movie was quickly rushed into pre-production. *Robocop 2* was released in 1990, and Ocean naturally had the home versions ready to ship at the same time. Never one to innovate for the sake of it, Ocean's Robocop 2 followed the same path as before, mixing action with puzzles, though there was more emphasis on platform-jumping the second time around (with Robo doing a very good Super Mario impression). The game's design wouldn't win any awards, but Ocean's commitment to the cause certainly would – the title appeared in time for Christmas 1990 on almost every platform imaginable.

Ocean's eagerness to coincide with the film's opening caught it out with the delayed release of *Robocop 3*. The film was originally scheduled for a 1991 release, but Orion Pictures went under during post-production, so the completed film sat on the shelf for over two years. But Ocean had the game ready to roll, and put it out anyway in 1991. This time around, Ocean finally broke the mould with a vector 3D game for 16-bit computers (the 8-bit computer and 16-bit console versions were once again a mixed bag of 2D gaming styles). Games based on the *Robocop vs Terminator* comic followed, and a next-gen console game appeared in 2003, but none have managed to top the excellent Robocop 3 for the Amiga (pictured below).







Original arcade version



Sinclair Spectrum



Commodore 64



Amstrad CPC

Spectrum

It was clear from the beginning that Ocean wasn't interested in making a direct copy of Data East's arcade original, instead opting to blend together action sequences from the coin-op with puzzle elements and variations in a style that would become a hallmark of Ocean movie licences.

In addition to the side-scrolling sequences featured in the arcade, photofit sections are implemented, as is a first-person shooter with players having to apprehend a criminal holding a hostage. Overall, this version provides mixed results. Flawless presentation (including lots of speech) and Jonathan Dunn's well known 128K title music are offset by an overly tricky challenge and some very similar-looking levels. Despite being a great demonstration of the Spectrum's capabilities, this port isn't actually that much fun to play.

Commodore 64

Though not featuring nearly as much speech as the 128K Spectrum version, the C64 release more than makes up for that with the definitive version of Jonathan Dunn's title-screen tune, boasting a much deeper and menacingly resounding SID chip arrangement. The in-game score is great as well, with Ocean formulating its own compositions rather than imitating those found on the coin-op, while graphics are bright and clearly defined. The difficulty setting, meanwhile, is of a more sensible nature, making for a playable and enjoyable experience – though some people still swear it's impossible to make it through the drug factory on level five before the clock runs out, after which players face the equally infuriating task of beating ED-209 with their bare fists. That aside, the C64 version is undoubtedly the best of the 8-bit releases.

Amstrad CPC

In similar fashion to the other 8-bit ports, the incarnation found on the CPC changes the game dynamics by introducing several new sub-games. The sound is superb, featuring just as much speech as the Spectrum, right down to the listing of the three prime directives before the start of each new game. Jonathan Dunn's title music is present once again, as is the in-game score found on the other versions. Visually, this game is a hybrid of the other 8-bit releases, containing a colour scheme akin to the Commodore and sprite designs not unlike those on the Spectrum. The CPC version is satisfying and very playable – for once, Amstrad owners were not short-changed when it came to a major coin-op conversion.

Commodore Amiga

An arcade-perfect port was expected from the Amiga, and while this wasn't achieved, Ocean's effort certainly didn't disappoint.

Graphically it can't compare to the glorious-looking coin-op version, but to the delight of arcade fans, Ocean decided to retain the level design from the original rather than redesigning the side-scrolling sections and adding extra puzzle sections. On



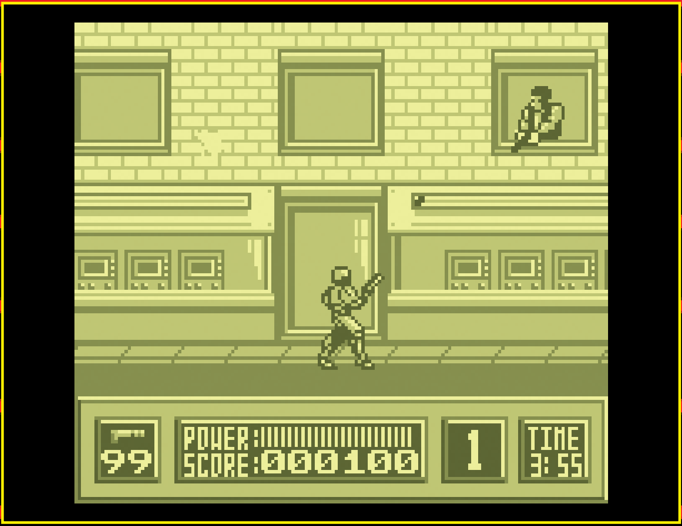
Commodore Amiga



PC (EGA version)



Nintendo Entertainment System



Nintendo GameBoy

the downside, this rendition is saddled with an obtrusive border that wastes too much of the playing area, along with rather tinny music and a disappointingly weak recreation of the arcade machine's attract mode. Even more criminal is the fact that the Amiga version is identical to the Atari ST edition, raising the notion that while it's good, it could and should have been great.

PC

Producing a convincing interpretation of the Robocop arcade machine on a late-80s-spec PC was always going to be an uphill task, but Ocean did at least try.

Saddled with ugly CGA graphics and paltry PC speaker sound, the IBM port is a major disappointment and the least successful attempt to capture the essence of the coin-op. Opening with an embarrassing recreation of the arcade machine's attract mode, the game itself isn't much better. Despite the quick pace of the scrolling, play proves both boring and frustrating, with sticky and unresponsive controls, plus end-of-level baddies that take an eternity to defeat. Interestingly enough, Data East took it upon itself to release a second PC port aimed squarely at the American market. Despite improved EGA graphics, this is little better.

NES

The NES version is the furthest removed from the arcade original, which is very surprising as it was actually produced by Data East. Deciding to start from scratch and design a platform shooter bearing little resemblance to its masterful coin-op (or the film, for that matter), Data East turned out a rather pedestrian Nintendo gamepak. Controls are cumbersome, with the addition of a 'block' action further confusing matters. The graphics aren't particularly cinematic and an incredibly grating interpretation of the film's main theme accompanies the action. But general presentation isn't bad, featuring comic-style cutscenes and adequate backgrounds, though this is more *Robocop* the crappy TV series than *Robocop* the classic movie. And what exactly are allthose attack dogs doing in the game?

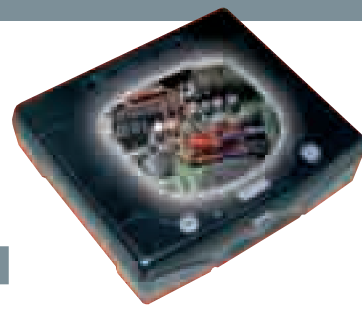
GameBoy

Limitations of the handheld not withstanding, this translation is largely successful and provides a nice little interpretation of the coin-op. The graphics are – obviously – monochrome but packed with detail, while the music is excellent throughout (and is actually the version used in the famous Ariston TV commercial).

The gameplay is perhaps a tad sluggish, and the game is almost impossible to complete (as you only had a single life!), but, overall, Robocop on the GameBoy is far more enjoyable than Data East's own effort for the NES. It terms of looks and design, it's very close to the Spectrum version, and was probably ported direct from the Spectrum as both machines use the same Z80 processor. Released in 1990, this was the last version to appear, and proves to be a fitting swan-song to one of the most successful movie licence deals ever.

eMag

Import Gaming



Serious retro enthusiasts enjoy good games, regardless of which country they come from. Unfortunately for many avid gamers, playing these games means moving into the daunting world of importing. John Szczepaniak pulls on a pair on soldering gloves to bring you the ultimate *Retro Gamer* importing and modding guide for consoles

Everyone should import. It's as simple as that. Whatever your favoured genre or console, if you enjoy playing console games, you simply must import at least *some* of your games in order to have access to the best the gaming world has to offer. But there is a catch.

Games bought outside of your regional territory probably won't work on your native gaming machine, because companies intentionally engineer their machines and games to be incompatible with each other, in order to maintain an iron-fisted grip on regional markets. Luckily though, this lockout security can be easily bypassed, allowing you to deflate these regional price balloons by legally importing cheap games from abroad. This is especially useful for those games that wouldn't otherwise be sold where you live, as many great games simply aren't released in the UK (and often the rest of Europe), so importing is the only way to play them.

Pre-Dreamcast games sold in the UK also run in the dreaded PAL 50Hz format, meaning they not only run noticeably slower than American and Japanese games, but also have appalling black borders at the top and bottom of the screen, resulting in a squashed image. Basically, any older machines bought in the UK will run in PAL 50Hz mode, which is slower than American and Japanese systems that run in NTSC 60Hz mode. The fact remains that America and Japan have it better than countries in Europe or places like Australia when it comes to console gaming. To a degree, this has been fixed since the launch of the Dreamcast, with some games allowing you to choose a faster 60Hz option, though this sadly doesn't apply to retro systems and games.

Finally, there's the constant problems with delayed release dates (the UK has to wait on average over six months for games to be released), botched localisations, poor cover art, and, in the worst cases, triple-A titles that aren't released in the UK *at all* (such as Mario RPG). The solution to all of these gaming ailments is importing.

Import-ant information

There are various options available to those wanting to play full screen games and/or import titles. One is to buy an import machine that, as standard, will play foreign games and work at full speed. Most American cartridge consoles will run Japanese cartridges with a minor modification, and the same is applicable the other way around. If you buy a foreign machine you'll need either a replacement power supply (which can be bought from most electronics stores) or a step down transformer. You'll also need to have a fairly modern, RGB-compatible TV in order to connect the system. All TVs bought within the last five years should work, but not all old machines are easy to hook up – go to **www.ntsc-uk.com** for a good TV guide on this subject. We cannot stress enough, though, that there is no better way to play videogames than with a dedicated RGB signal. It is the *only* way to truly enjoy games, and for this reason we have included several RGB explanatory guides on this month's coverdisc.

Alternatively, you can modify a UK machine to run at 60Hz and have no region lockout. This is useful since it removes the worry about mains adaptors/transformers, ensuring TV compatibility. It can also prove much cheaper than having a foreign system shipped over. Also provided on the coverdisc this month are a series of easy-to-follow photographed guides that allow anyone with basic soldering skills to modify various consoles. For the more complex machines, we have included two different guides for your perusal. There are also general guides for things like fixing an N64 pad and re-bending the pins on cartridge connectors.

If all this sounds complicated and completely alien, then fear not, because we're going to guide you step by step through the incredibly easy process of experiencing games the way their developer intended. But best of all is the fact that import games are often cheaper than local games, thanks to lower prices abroad, the stronger pound and the advent of online shopping. Different methods will suit different gamers, so read carefully and work out which one suits you best.

While every effort has been made to cover as many methods as possible, this guide is limited by space and so further reading is always recommended before making a major purchase. This month's CD has several links to various websites that look in infinite detail at a variety of further importing subjects.



You'll find dozens of console modding guides on this month's coverdisc, all kindly supplied by Pete Grimes and Lawrence Wright

›Console modding

The following rough guides are written for prospective UK import gamers

›Nintendo

NES: This is perhaps the earliest console to feature lockout. The only bypass complications experienced here are down to the sheer variety of methods that are available.

The Famicom is exactly the same as the NES, with one exception – a smaller 60-pin connector, and therefore smaller cartridges, compared to the NES' 72 pins. This difference makes the crossover between East and West slightly tricky. Buying the original old Famicom is also not a good idea, as it can't be run on a UK TV without modification – but the sleeker AV model is fine.

The simplest and cheapest method is to buy a Famicom Clone, such as the recent NeoFami by GameTech (sold at Lik-Sang). These are compatible with modern UK TVs and often come with a 72 to 60 pin adaptor, allowing US/UK games to be played on them. Adaptors can also be bought for around £5 online. In Brazil, it's common to find certain Famicom clones that have both 60- and 72-pin cartridge slots, making them genuinely universal systems. These adaptors aren't really needed in Brazil though, since some of the carts produced there have two connector edges for each type of pin configuration.

Thankfully, playing foreign games on a locally bought, frontloading UK NES is easy, as the mod available for this system is perhaps the simplest to perform – you just need to cut a single metal pin (see coverdisc). In most cases, this mod will also fix the NES' blinking light problem. At one time, there was a cartridge adaptor that allowed American games to be played, but these are now obsolete.

This mod won't fix the problem of the smaller Famicom carts, though. Some early US NES games actually came with a Famicom adaptor built-in, which was used by Nintendo to alleviate demand for games when production was low (allegedly, Stack Up always contains this). The carts can be opened and the adaptors freely used, but finding them is an unlikely and imprecise lottery. Again, it's far easier to go online and buy a Famicom pin adaptor for about £5.

Those lucky enough to own a top-loading NES will know that there is no regional lockout, allowing for easy US/UK game importing. A small amount of these systems were released in PAL regions.

SNES: US/JPN machines will play each others' games with a slight modification. If you have a UK system, you can either use one of the myriad of adaptors that are available or mod it so that it can switch between regions and Hz (see coverdisc). The reason we add a switch instead of hard-modding it, is because some games (such as Super FX chip titles) will suffer from glitches when running at a different speed, while other titles check the speed and won't work at all if it's been altered. Be warned that, regardless of which method you've used, some games will be tricky to get working – an example of this is the infamous Mario RPG. For maximum compatibility, it may be best to have both a PAL and NTSC console.

Because there are so many, examining every SNES adaptor is beyond the scope of this article, but ask around and remember that results can vary, particularly with games that use special chips (Starfox, Yoshi's Island etc).

Nintendo 64: As with the SNES, US/JPN machines will play each others' games when slightly modified to accept the different shaped cartridges – the actual pin connectors are identical. But playing foreign games in the UK is tricky and, in all honesty, dedicated gamers will be better off importing an actual machine.

For those simply wanting to play one or two foreign games, the quick-fix method is a cartridge adaptor. Be warned though, that the games will still run in the slower 50Hz. This method also isn't 100% reliable, since Nintendo regularly updates its security. If you opt for this method, be sure



The now redundant NES GameKey – useless in light of the ridiculously easy NES mod available

›Handheld hacking



Importing for handhelds is much easier as they come with a built-in screen and no lockout. The DS, GB, GBC, GBA/SP, e-Reader, Game.com, Game Gear, Kids Gear, Lynx, NeoGeo Pocket/Color, PSP, Virtual Boy and Wonder Swan/Color don't use region protection on any of their games, so you can import both the games and systems, and at *much* cheaper prices. Be warned, though, that machines that require mains charging, such as the SP, will come packaged with a foreign power adaptor.

The only handhelds known to use regional lockout are the NEC PC Engine GT (JPN) and Turbo Express (USA), as well as the Sega Nomad. This is because they are actually just portable versions of the larger TV-based PC Engine and Mega Drive, so they retain all the security.

There's no easy way to bypass the Nomad's security (though there is a 50/60Hz switch available), but just like its bigger console brother, early Mega Drive/Genesis games will work fine. There is a mod you can perform to remove the PC Engine's portable lockout, but the unit has to be totally disassembled to do this, so it's not recommended. Alternatively, you could just buy the Japanese GT – they offer a greater range of games and most of them use minimal text.



The famed Famicom-adaptor-in-a-NES-cart, which can be found in a few American NES games

to buy the latest Plus 3 N64 Passport adaptor, otherwise later games such as Sin & Punishment will not work. You'll also find that the newer the N64 game you want to import, the more likely you are to run into trouble, and some games require specific Action Replay-style passwords. For the adaptors to work you need to plug a native game into the back of them, and it has been reported that certain import titles require a specific game to be attached. There is also the slight risk that you could lose your saved data.

A benefit of buying an actual NTSC system is that it can be RGB modded to present an ultra-sharp image, which many claim gives these older games a new lease of life.

›Sega

Master System: For the most part, there is no regional lockout on this system. Some later games won't work on systems from different regions though, such as Street Fighter II from Brazil. All Japanese SG-1000 Mark III games require a converter, though you have to build these manually. As there are very few import-only games, the easiest option is to buy a cheap UK system and then mod it to achieve 60Hz speed, as well as RGB.

Mega Drive: Regional lockout for the Mega Drive is software- not hardware-based. This means that early games that lack regional security will run on any Mega Drive system, while some later games will suffer from problems (such as Streets of Rage 3). Interestingly, many games have multiple languages built-in, and will switch to the region of the system they're running on, like Mercs, for example. In general, it seems that games released during and after 1995 feature additional security that causes problems. To correct this you can either purchase an Action Replay cartridge that can bypass the security, or install a region and Hz switch in the hardware. Be warned that each model of the system will require a different kind of modification (again, these are included on the coverdisc). In truth, the Mega Drive isn't an essential system to import for since the majority of great Japanese games made it over to the UK. The 60Hz system mod is indispensable, though.



The fabled and rare Datel CDX cartridge, used to play imports on a PAL Mega-CD

Mega-CD: There can be some confusion when importing for this system, due to the hardware variations. There are, however, two fairly simple solutions, though neither of them is perfect. The first is to buy a CDX adaptor cartridge, released exclusively in PAL territories and not to be confused with the machine of the same name. Most normal games will work correctly with this, but FMV games won't. Some have timing issues – for example, the US version of Night Trap is impossible to play on import. Most FMV intros will also skip, causing them to be unwatchable, though gameplay is often unaffected (Sonic CD is an example of this). Sound can also be fuzzy or distorted.

The CDX cart is rare and commands high prices, so an easier and cheaper method is to simply patch the games to suit your region. There are a few programs available for this, with the latest and best being ConvSCD (**www.retrodev.com**, and available on last month's coverdisc). To patch an import game you simply rip it to your PC hard drive, then load the program, select the ISO and ask it to patch the game for the desired country (JPN/USA/UK). The whole process is automatic. Afterwards, you just burn all the previously ripped files, and you should then have a game patched to work on your region of system. This is beneficial since the originals can then be kept in pristine condition in their boxes.

Again though, some games (mainly FMV) will not work due to the timing issues between systems.

This is another system for which you will only achieve maximum compatibility by having multiple regions of system or playing the CDs on an emulator such as Gens.

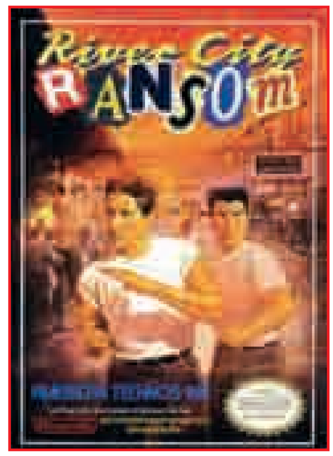
32X: Technically, there is no regional lockout here, and region is decided by the Mega Drive system being used. However, some games won't run correctly with a different Hz speed. In all honesty, there were so few games released for this system that it's not really worth importing for. The UK system also has some nice exclusive titles, like DarXide, which *RG* reported on in issue 13.

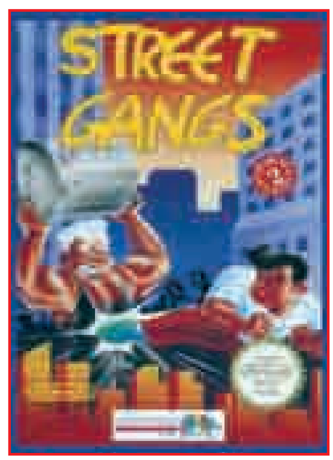
Saturn: Perhaps the system that's worth importing for the most, since it died prematurely in the West, but went on to receive some of the best Saturn titles around in Japan (especially if you are a shooter fan). There are two main methods of importing. The easiest is to buy a Datel 5-in-1 cartridge. These can be used for additional saved data, Action Replay cheats, 1MB RAM expansions, 4MB RAM expansions and the playing of import games. This method is incredibly useful for games that require the extra RAM cartridges to work. Games will still play in 50Hz though.

A better, though more difficult, option is to install regional and Hz speed switches to a PAL system. This has two advantages: you can play any region of game and you can run those bargain bin games bought locally at full speed. Be warned that this regional mod is perhaps the most difficult of all to do, because of the different hardware variations, but the rewards are well worth it. On the coverdisc you should find at least two different methods, as well as links to more. Be sure to do some extra research before attempting this mod!

Dreamcast: There are a variety of different methods, including chipping and a bizarre one that involves removing the battery, but the easiest is to buy a PAL console and use either a boot disc or the Action Replay disc (and a free AR demo that came with an issue of *DC-UK* also







From top to bottom: examples of Japanese, American and UK cover art for the same game. Which do you prefer?

works). Be warned that some games won't run with this method, such as Rent-A-Hero No.1 which requires an NTSC system otherwise the screen glitches terribly. Some games like Ikaruga will also only boot up in 50Hz when used with common boot discs such as Utopia and AR. The Utopia disc can be downloaded off the net free and easily burned. Look around and decide which boot disc is best suited to you. For UK gamers, a PAL system is recommended due to the cheap console and game prices, the high level of compatibility and the fact that most UK DC games have a 60Hz option. Coupled with the many boot discs, these factors make the PAL system the best overall choice – easier and cheaper than buying an NTSC system and chipping it.

›Atari

The Atari 2600, 5200, Jaguar and Jaguar CD all do not have any intentionally implemented regional lockout, which is highly commendable. The Jaguar works very well and has been confirmed to correct the output of whichever game it's running, no matter what the region. This means no TV problems whatsoever. The earlier systems, though, run into trouble due to their coding. As explained by Mat Allen, the 2600 is the only console where the region of the game determines the output rather than the other way around. Many NTSC games will display the wrong colours when played in the UK because of the colour frequencies intrinsically tied into the coding for the machine. The 5200 is NTSC RF-out only, meaning you'd need to have someone mod it to either composite or better, then connect it to an NTSC-compatible TV. Interestingly, the 7800 is the only system with a security lockout, which is strangely missing from the European PAL version. NTSC games will still glitch when running, though, due to the region-specific coding.

›NEC

The NEC consoles are another wonderful series of systems to import, hampered only by the many name changes and hardware models that muddy the waters. The PCE and TG16 play NEC HuCards – tiny slabs of plastic that resemble credit cards. The Duo and various other CD-based add-ons and hybrid systems also play what are known as Duo games. Surprisingly, the PC-Engine did receive a limited release in France as part of sales testing. Rare, overpriced and PAL, these should be avoided entirely. Anyone seriously considering importing these gems from NEC should take the plunge and buy a foreign system.

But which one? That depends entirely on what you want to use it for. A Japanese PCE requires RGB modding to run on a UK TV. For maximum compatibility, both with games and TV sets, a Japanese combined system such as the TurboDuo comes highly recommended. Power adaptors are easy enough to replace, while the AV cables work well on modern TVs. This would allow you to play the much larger range of Japanese HuCard games as well as *all* Duo games from *both* regions. USA HuCards won't work on it, though. Those desperate to play both regions of card can either buy a rare adaptor that allows Japanese games to be run on a US system, or simply obtain an American TG16 (which are fairly cheap today).

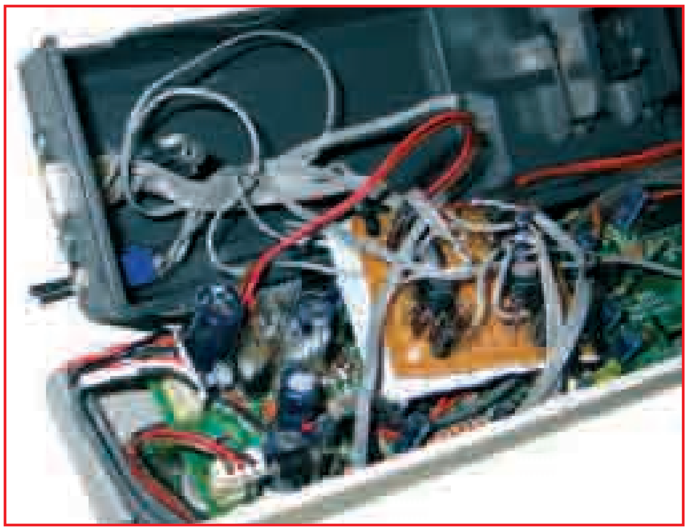
Buying a USA TurboDuo instead is fine, since it allows all the card and Duo games to be played as well as the majority of Japanese Duo games, but there's a slight problem when it comes to Japanese Arcade Duo games. A very small number of Arcade Duo games were released that require an Arcade HuCard (which boosts the RAM) attached in order to work – such as the ridiculously expensive shooter Sapphire: Ginga Fukei Densetsu. Titles that require this card typically have enhanced graphics and sound, but the card will only work on systems that can accept Japanese HuCards. Some games (such as Popful Mail) claim to be compatible with the Arcade card in order to reduce loading times, but will run without one. When buying a Japanese Duo system be sure to buy one of the later models, since the earliest models require different cards for different CD games. Be warned as well that a Duo-R only has one control port, meaning a multi-tap will be needed for extra-player shenanigans.

›SNK

Much like the Atari systems, machines developed by SNK have no regional lockout on them. Any region of game will work on any NeoGeo system, be it AES, MVS or NGCD. The AES is the commercially released, more expensive system; MVS runs the arcade boards and is cheaper



A rare and expensive HuCard adaptor that allows Japanese games to be played on a US machine. At £100, you're better off buying a cheap system somewhere



Do not be put off by scenes like this – most mods are relatively easy to do for anyone with basic soldering experience, and the guides are detailed



The Japanese Duo-R plays JPN HuCards and all Duo CD games, but only has one control port



The NeoGeo MVS, a collector's item which is more affordable than the AES

though doesn't look as nice; NGCD is a CD-based NeoGeo system and comes in two different models. The AES had a limited release in Europe, but like the PC Engine, you may as well go all the way and buy a JPN/USA system from the start.

Depending on which region of AES system is used, the games will select a different language and censorship level automatically. Due to the action-based nature of these games, a Japanese system is highly recommended. The language won't cause any problems and you'll be able to enjoy the games as they were intended – with full blood levels and other risqué content.

But most NeoGeo collectors will recommend an MVS due to the far more affordable pricing and the ability to manually select things like language, blood level, etc (it plays the original arcade games, after all). The general rule is that all games available for the AES are available for the MVS, and in some cases there are even a few exclusive MVS-only games. MVS games can be converted to run on the AES, though. There are also MVS-to-AES converters, but they have been reported to be fairly unreliable. The downside to the MVS is that it tends to be an open system with visible components, though it's possible to find console-ised versions.

The NGCD system was meant to be an answer to the high prices of the AES, and again there's no regional lockout.

Loading times on the original hardware are atrocious, and many would advocate emulation for playing the CDs. They are identical to their cartridge counterparts, albeit with vastly improved audio. There are a few CD-exclusive games, though the cartridge systems have been far better supported.

A few mods are available for different NeoGeo systems, with varying difficulty levels. Extra caution should be taken due to the extremely high prices of these systems. A visit to **www.neo-geo.com** is also strongly recommended for all your NeoGeo needs.

›Sony

There's a plethora of ways to play imports on an original PlayStation, from boot discs and many easy-to-install mod chips, to the now infamous pen-with-an-open-lid trick. Most mod chips are easy to find with a little searching, and generally speaking they're all good. Be sure to also buy an RGB SCART cable to ensure a colour display. There has been talk about newer PSOne releases not working with some chips, though this hasn't been the case with any of the models tested by *RG*. The new, remodelled PSOne has had several internal design changes in an attempt to prevent mod chip installation, so use a boot disc. Again, be sure to double-check before taking the plunge. ›››

›Please note

While every effort has been made to ensure that all information contained here is accurate and up to date, there is the chance that some of it might have become outdated, or may not work perfectly with your specific piece of hardware or software. Companies constantly update their regional lockouts, making it difficult to give definitive guides for all systems.

Everything contained here has been found to work in the majority of cases, and all methods given are only suggestions. Overly obscure, imprecise or complicated techniques have been omitted. All information provided assumes that further reading will be done on any given subject. When in doubt, check and ask. Most forums are happy to provide importing information. As well as this, be sure to check with the store where you are buying import devices.

***Retro Gamer* takes no responsibility for any damage incurred during the attempt of any such modifications, so if your Saturn starts emitting black smoke or sets your trousers on fire, we're afraid we can't help!**

Finally, some methods described in these pages require the use of 'mod chips', which may not be legally sold in some countries, including the UK. We strongly advise you to check the laws where you live.



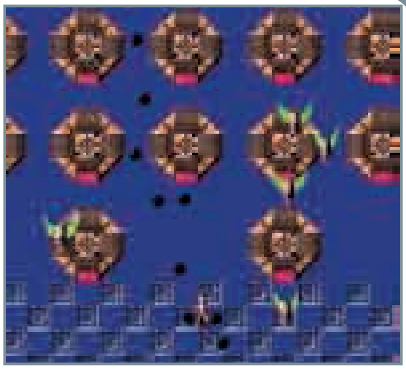
Here we see the images produced by composite and RGB signals, on a regular Famicom and Famicom Titler respectively, highlighting the difference in quality

›Great import-only games

In order to whet your appetite, here are a select few titles released in Japan or the US that can only be played in the UK by importing

B-Wings

Famicom, JPN



With literally hundreds of exclusively Japanese Famicom titles available, trying to list a few of the good ones is difficult. Many greats like Getsufuu Maden, Moon Crystal and Layla are practically unknown to Westerners. But B-Wings is something that more people should investigate, being a rather special Famicom-only shooter. What makes it so enjoyable is its unique weapon system of 10 different wing configurations, each of which is useful in different situations. Visually basic, but with solid gameplay.

Earthbound

SNES, USA

The total antithesis of most of the RPG clichés that people hate, Earthbound is a breath of fresh air for anyone who has grown tired of the genre. Funny, surreal, light-hearted and filled with genuine feel-good moments, this is one of the few examples of a genuinely timeless classic and an RPG that breaks many of the so-called 'rules'. It was also created not by a traditional games designer, but a Japanese copywriter.



Goemon games

Super Famicom, JPN

While only the first was released in the UK, in a heavily butchered form, a further four were released in Japan for the SFC. All of them are wacky, crazy and incredibly good fun. Without doubt, this is one of the best series to come out of Konami and the titles are worth importing. Apart from the third instalment, all can be completed easily in Japanese.



Yu Yu Hakusho

Mega Drive, JPN/Bra

A truly phenomenal, simultaneous four-player beat-em-up, Yu Yu Hakusho is strongly reminiscent of Guardian Heroes and is clearly one of the titles that inspired Treasure's later creation. Highly enjoyable in single-player as an over-the-top and zany anime-styled brawler, it's unstoppable in four-player mode and one of the best multiplayer experiences available on the system.



Rent-A-Hero No.1

Mega Drive, JPN

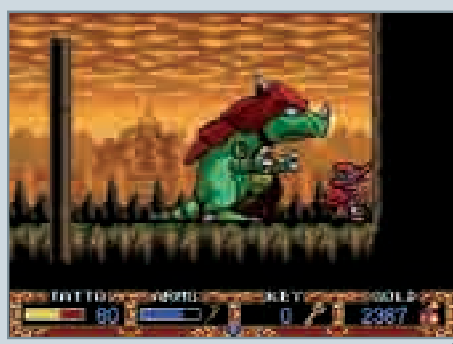
RaH is a typically bizarre Japanese RPG from Sega, often described as the B-movie equivalent of gaming. Cheesy, hilarious and just plain weird, this is unique game that should have been released in the UK. It plays like a mixture of an RPG and a beat-em-up, and has interesting features such as opening bank accounts and making deliveries. It starts with you donning a battery-powered superhero suit then battling your father who's dressed as Godzilla. Says it all, really.



Popful Mail

Sega CD, USA

A brilliantly funny game, based on the Falcom original and developed by Sega, Popful Mail was localised by Working Designs and is regarded as one of the best games ever released for the Sega CD. Not surprising since it mimics the expert design of Wonderboy: Dragon's Curse. Alongside Snatcher, Sonic and the Lunar games, this is one of the definite reasons to own the system.



Dracula X Chii no Rondo

TurboDuo, JPN



Despite its high price tag, this is still the ultimate Castlevania game before it was reinvented with Symphony of the Night. Two selectable characters, branching pathways, massive bosses, fluid control and multiple endings – not to mention some astounding aesthetics – make for an unforgettable experience. Perhaps an overused choice, but Chii no Rondo is a game every Castlevania fan simply *has* to play at some point.

Sin and Punishment

Nintendo 64, JPN



This fantastic Treasure shooter really should have been released abroad, but thankfully is easy to import due to the massive amounts of English dialogue present. Make sure you have the latest Plus 3 Passport Adapter in order to play it. Other notable niche mentions on the N64 include Wonder Project J2, Dezaemon 3D and Neon Genesis Evangelion 64.

Princess Crown

Saturn, JPN

There are countless Japan-only Saturn games, and again it's tough choosing only two. Princess Crown is often overlooked by the importing community in favour of more action-packed games due to its cutesy graphics. But for anyone who loves large, colourful and fluidly animated sprites, there's no better game. It plays like a side-scrolling adventure with light RPG overtones and hack 'n' slash combat. A massive and highly enjoyable import.



Metal Slug

Saturn, JPN



A commonly referenced but still excellent game. Despite the high price tag, and the need for a RAM cart, this Contra-style side-scrolling shooter is an absolute joy to play, backed by some of the smoothest 2D animation ever seen. While the sequels are available cheaply on other formats, this initial version is still a favourite among fans. Well worth tracking down.

Panzer Bandit

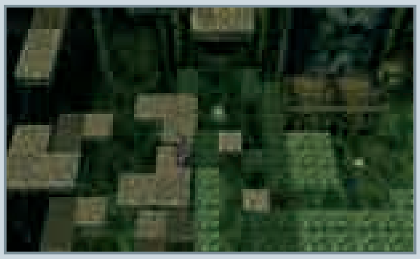
PlayStation, JPN



The PSOne is similar in a way to the Famicom in that it has an ocean of poorly documented, though excellent, Japan-only games. Panzer Bandit is listed here not only because it's a button-bashingly good brawler that blatantly copies Guardian Heroes, but also because no list is complete without a highly obscure and rare game to salivate over. While the West became obsessed with crude polygon games, Japan received beautiful gems such as this.

The Divide: Enemies Within

PlayStation, USA



A highly enjoyable Super Metroid clone that surprisingly works very well in full 3D. Created by fans of the Nintendo classic, the inspiration is clear to see, from the energy-tank health bar to power-up and opening-stage music. This is one title from the USA that has been criminally overlooked and ignored, though thankfully can be bought cheaply today.

Tokyo Bus Guide

Dreamcast, JPN



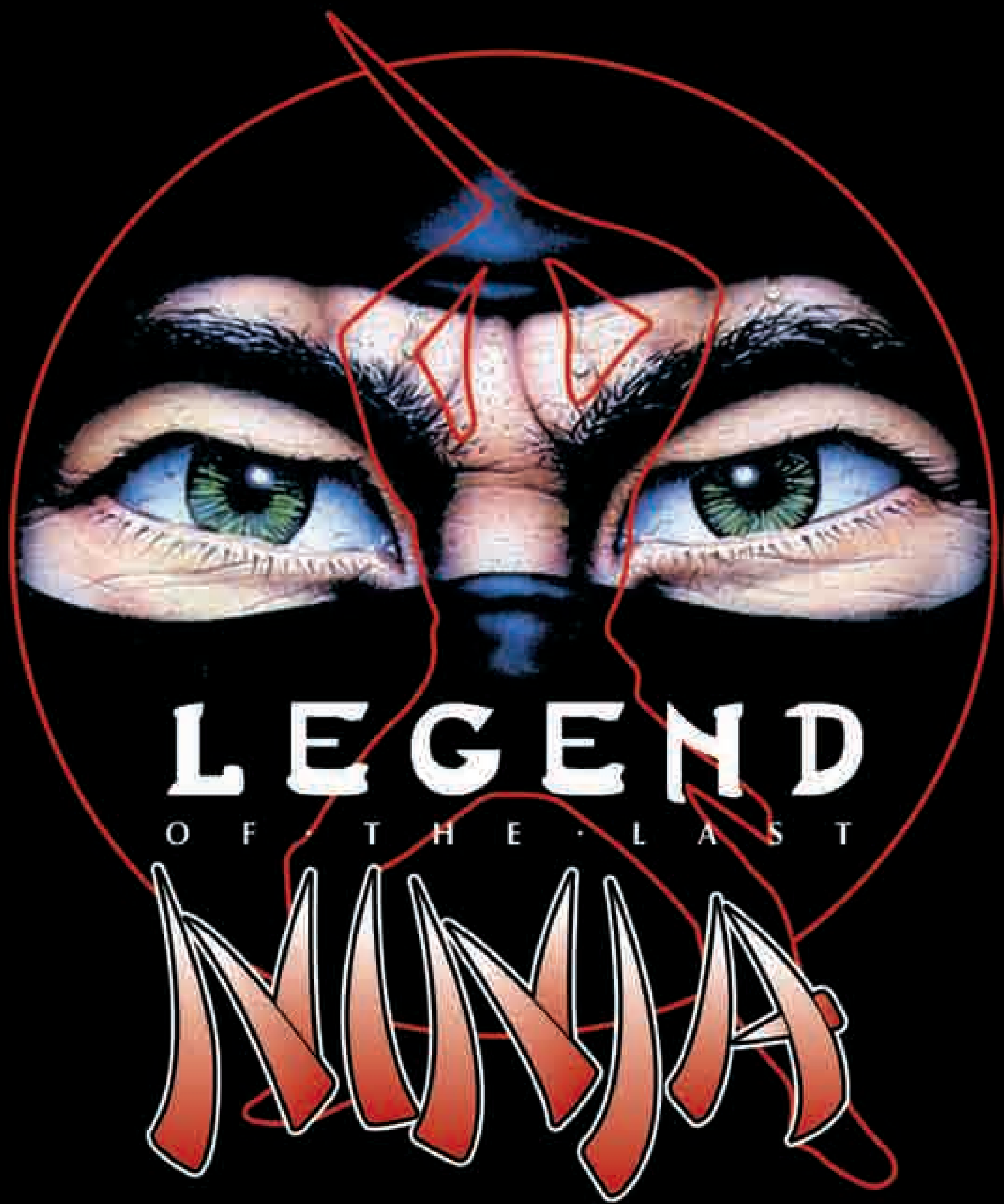
A great deal more fun than it may sound – there's a definite innate joy to be had from leisurely driving people around Japan's main city. The complete opposite of Crazy Taxi, the task here is to follow the rules of the road, indicate correctly, remember to close doors and announce the next stop, not to mention keep to the all-important time schedule. A game that has to be played to understand its charm.

D2

Dreamcast, USA



Creepy and cerebrally disturbing survival horror set in the snowy Canadian wastes. The combination of having to hunt for food to survive, a unique combat engine and also the increasingly depraved goings on make this one of the Dreamcast's most atmospheric titles, and one that sadly never reached the UK. Instead we had Blue Stinger…


LEGEND
OF·THE·LAST
NINJA

These vengeful eyes will be unmistakable to many. They belong to Armakuni, The Last Ninja, star of System 3's phenomenally successful series of games. If you somehow happened to miss out on these classic titles the first time around, let *Retro Gamer* enlighten you. To tie in with this month's coverdisc, and to celebrate the mobile phone version soon to appear on the new Play It Mobile label, we spoke to Last Ninja designer Mark Cale and programmer John Twiddy

The Last Ninja was originally released way back in 1987 for the Commodore 64, and later ported to the Apple II, PC, Atari ST, Amiga and others. Selling in huge numbers worldwide, the game was a massive hit and a critical triumph. This wasn't surprising, as the amazing isometric graphics, excellent mix of combat and puzzle solving, and amazing music (by Ben Daglish and Anthony Lees) couldn't fail to impress. There really was nothing quite like it on the C64. If you were expecting a clone of Data Soft's Bruce Lee then you'd certainly be surprised – pleasantly, of course.

As lethal ninja Armakuni, your goal is to infiltrate the fortress of the evil shogun, Kunitoki, in order to avenge the deaths of your fellow clan members. Your journey takes you through wastelands, mountains and idyllic gardens, right into the depths of the fortress itself, and finally to a one-on-one showdown with Kunitoki. Filled with combat, puzzles and notoriously tricky jumping sections, the game is simply stunning.

Thanks to the success of the game, a sequel was inevitable and The Last Ninja 2: Back with a Vengeance was released in 1988 on most major formats. Taking place in modern-day New York (as Kunitoki managed to teleport you through time, the cad!), this chapter is considered by many to be the best in the series, improving on the original's graphics and gameplay to produce a smoother experience with better animation and environments. Puzzles are also a little more elaborate, with switches and other types of trickery added to the mix. You even have to make your trusty nunchukas out of a pair of toilet chains, and the New York cops can shoot you dead with a single shot.

Following the release of Last Ninja Remix (a minor reworking of Last Ninja 2 on 8-bit machines, and a welcome release of the original game on 16-bit systems), the third chapter appeared in 1991, and upped the visual ante even





And so begins Armakuni's vengeful quest, in one of the very best games to grace the C64

more – but sadly it wasn't received quite as well as the first two. Going back to its roots in ancient Japan – with Armakuni once again on the trail of the evil Shogun – Last Ninja 3 is more akin to the first game. But while it boasts better visuals, the gameplay isn't quite as clean-cut as the first two and technical trickery takes centre stage. It's still a very good game, though, and of course the music (this time by Reyn Ouwehand) once again pushes the SID chip to its limits.

The trilogy has become a thing of gaming legend, and the isometric adventures of Armakuni and his fight against the evil shogun Kunitoki still endure to this day. All three games are still as enjoyable as ever, and we'd highly recommend any self-respecting retro fan to give them a go. But before you dip into the disc and fire them up, why not discover the story behind the games? *Retro Gamer* recently interviewed both Mark Cale and John Twiddy to find out more about the original series, the long-awaited Last Ninja 4, and the new mobile phone version...





The first two games were published in the US by Activision, which commissioned very different cover art

›Mark Cale interrogation

Straight-talking System 3 boss Mark Cale came up with much more than just the idea for The Last Ninja…

Retro Gamer: You're credited as a designer on the original Last Ninja. Presumably you came up with the characters and the back story, as well as the visual style and gameplay…

MC: Basically, the whole idea – the whole concept – was mine. The vision of The Last Ninja as an isometric adventure was something I was very passionate about. Obviously, the machines back then weren't powerful enough to create fully 3D games, so an isometric viewpoint seemed to be the right solution to move away from the standard side-scrolling platform games. We wanted to do something a bit different, something that would really capture the imagination. And there really is no better subject matter than the idea of controlling a ninja, a spiritual warrior.

RG: So the plan was always to fuse together different gaming elements?

MC: Absolutely. We wanted to combine an arcade experience with adventure elements. So it wasn't like Double Dragon, where you just go punch, kick, move, punch, kick, move… The whole idea was to solve a series of simple but realistic adventure puzzles. What we were essentially trying to do was take the square cursor blob from Adventure on the Atari 2600 and turn it into a fully interactive 3D adventure.

RG: Although you were the boss of System 3, would you say you were pretty hands-on?

MC: Hands-on then, hands-on now. Pretty much all content goes through me. I'm a very passionate gamer myself, and I've always looked at everything from the view of a consumer.

RG: Ben Daglish and Anthony Lees' music for the game is great. Were they given any pointers or were they just told it was a ninja game and went off and wrote the music?

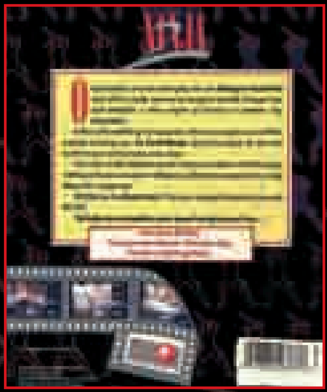
MC: We gave all the musicians a feel as to what we wanted. We had some pieces we felt were appropriate and gave these to the various musicians as a guideline.

RG: There's a rumour you offered Ben Daglish a Mercedes as payment instead of cash. Is that true?

MC: No, that's full of shit. As far as I'm concerned, Ben Daglish is a very talented musician, and it's a shame he didn't go much further with his music past the Amiga. I think a lot of people live in the past, with all the myths and the mysteries, and they come up with a lot of stories. Ben was a very small part of the overall project, and it's a shame people have to go around and spread stories and rumours and bullshit.

RG: Did the content cause any problems? Back in the 80s, ninja was like a dirty word, and nunchukas were cut out of films. Were there any problems like that?

MC: We had no issues like that at all with the game's content. The only real problem we had was with Ninja 2, where we gave away shuriken stars in a limited-edition box set, with a mask – unfortunately the shuriken ended up a little bit harder than we



Some versions of Last Ninja 2 shipped with a throwing star and a ninja mask, as well as the map and handbook

wanted, and some of the stores refused to stock it. If you look at it today, Health and Safety certainly wouldn't allow us to do what we did back then.

RG: What was the idea behind the special box sets?

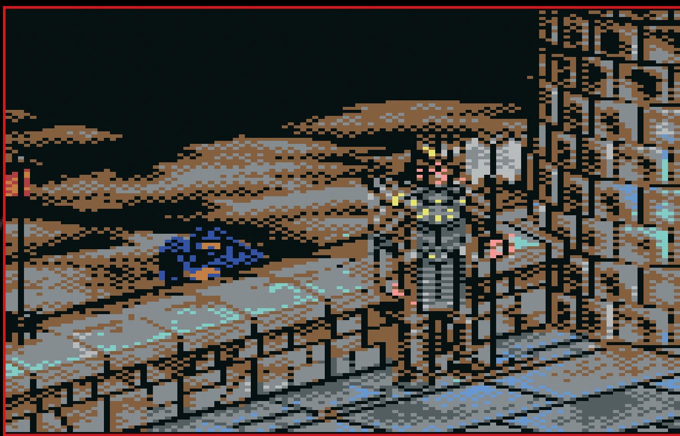
MC: As lots of people were waiting for Last Ninja 2, we decided to do two packs – the standard pack and a limited-edition pack. And it was just like in Japan, with people queuing up around the block to try to buy a copy before the shops opened. We still have the photographs.

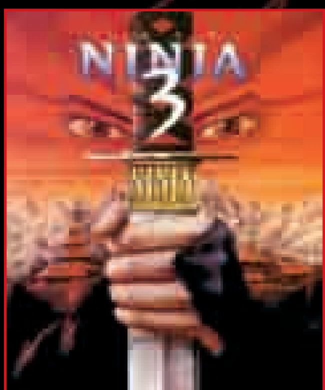
RG: Last Ninja 2 was a massive success then, but there must have been pressure to try to top the original. Is this what made you choose to open things up with a modern city setting?





Last Ninja 2 followed *The Terminator* route, with Armakuni travelling through time and ppearing in a random location – a bandstand in New York's Central Park





Ninja 3 is perhaps best remembered for its amazing animated intro, surely the finest on any 8-bit machine

MC: We always thought we had a great game on our hands, but we never dreamed that the original game would be as successful as it was. This game was number one all over the world, and at the time caused a huge stir for what was a cottage industry. For the sequel, we wanted to place a spin on things so it wasn't just the same as what had gone before. That's why we decided to shift the setting to New York, a typical metropolitan hustle bustle-type city. It provided us with a different graphical style and feel to the game.

RG: Last Ninja 3 featured a different development team. Was this a conscious decision to shake things up a bit?

MC: No, it wasn't. At that time, John Twiddy had left System 3 and formed his own company with Mev Dinc, which he consequently left to rejoin System 3. He provided technical support for Last Ninja 3, but by no means do we feel that Ninja 3 was the best of the series.

RG: What do you feel went wrong with Last Ninja 3?

MC: When working with such talented people as John Twiddy and Hugh Riley, there was always a certain amount of magic and things just flowed. With some other developers, they were always trying to escape the nemesis of the past. I think the programmers on Ninja 3 were always trying to outdo John Twiddy, rather than make a great game. It wasn't as good as it should have been.

RG: How did sales of the sequels compare to the original game?

MC: The original Last Ninja sold a huge amount of units – I think it reached 4 million on the C64. Ninja 2 came out right at the point when the C64 was at its most successful in terms of sales, and sold 5.5 million copies. If you take that into context, it's estimated that around 20 million C64s were sold, so one in four C64 owners bought the game. That was quite an achievement. Some people argue that Ninja 2 was the best of the three games, and I tend to agree with that. When the third one came out, the Amiga had really taken off and we didn't do so well. We sold about 3 million with that one.

RG: Tell us about the new mobile version. Is it a remake?

MC: It will be a remake of the originals, but obviously we're looking to improve the graphics. There's a lot more we can do with a mobile than we did back then.

RG: And what's happening with the fourth Last Ninja game? Is it still in development?

MC: We've scrapped the fourth game. I felt it wasn't representative of the market. For Last Ninja 4, I think you need to do something that recreates that kind of 'wow' factor of the original game, and in my mind it wasn't good enough to wear that badge – so why cash in on a great name? We may as well leave it as it is.

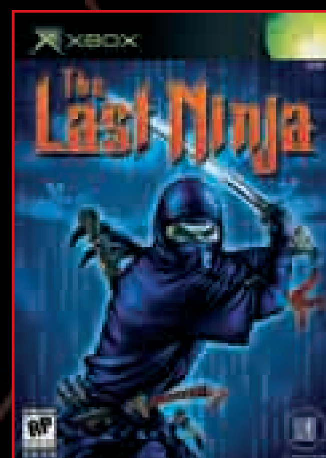
RG: Will there ever be a fourth game?

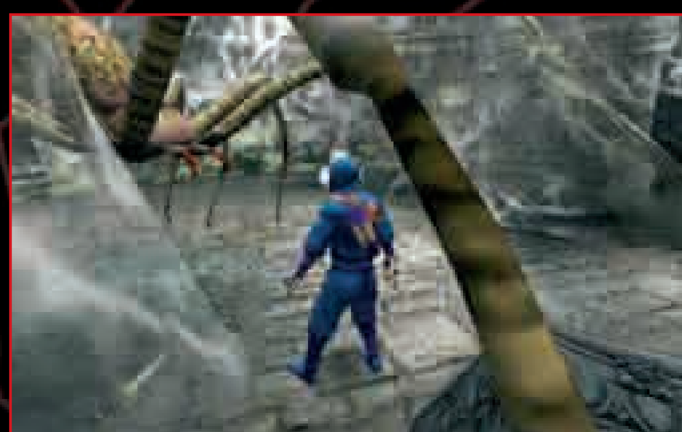
MC: There will definitely be a fourth game. It'll either be a retro version with updated graphics but the same gameplay, or something that's going to be an epic, like a Final Fantasy game but with a more arcade feel. What would your readers expect from Last Ninja 4? I'd be interested to know that, because sometimes you can't recreate the past.

›Web of intrigue

There's a dedicated shrine to Armakuni on the Web. Originally established by Kai Spitzley in 1997, The Last Ninja Archive (**http://lastninja.lemon64.com**) features news, reviews, walkthroughs, downloads, rare artwork, an active forum and more. It's also home to The Last Ninja Engine, a PC utility that lets you create your own Armakuni adventures with the same look and feel as the C64 original.

Meanwhile, for more information about the new mobile phone version of The Last Ninja, visit Play It's official site at **www.justplayit.com**.





All that now remains of the fourth Last Ninja game is an Xbox packshot and a few screens

›John Twiddy interrogation

John had a hand in all three Ninja games, particularly the first two titles which he coded for the C64…

Retro Gamer: Did the isometric viewpoint cause you any programming problems?

JT: Yes, it did. In the early days of computing you became used to doing everything in X and Y, then suddenly there was height to think about with jumping and stuff. But it wasn't that difficult because the viewpoint is essentially 2D - it's a cheat, really.

RG: The combat was very simple but it worked well. Did you ever think of changing it, or adding elements to it?

JT: What happened was that we produced loads and loads of different animations with lots of different weapons, then found we couldn't actually fit them all into the Commodore 64. So what we ended up doing was trying to create a sort of subset of all of the animations to give a reasonable number of moves with a reasonable number of weapons.

RG: We seem to remember an early Last Ninja screen in a magazine which showed different weapons…

JT: That's right, though I think that was probably mocked up [laughs].

RG: Many people remember the horribly difficult jumping sections, like crossing the stepping stones right at the start. Can we blame you for that?

JT: [laughs] Yes, I suppose you can. I have to admit that Mark always kept complaining that it was too pixel perfect, and the reality was that I found it quite easy to finish the game, but I thought you had to make it



Steady now, steady now… The infamous jumping sections from the original Last Ninja

reasonably challenging. So I have to admit I was the one responsible for making it so precise. I thought it looked really naff to be standing in mid-air, not on a stone, and so I thought it would be more realistic to have you fall in. I gladly accept now that the jumping sections were too tough, because when I went back and tried it again years later I found it impossible!

RG: The game was very difficult throughout. Was this a conscious design decision, or did it just work out like that?

JT: Because the graphics took up a lot of memory, we were very concerned that we didn't have quite enough screens – it varied between 16 and 25 on each level. So we wanted to make certain that it took a fair amount of time to get through the individual screens.

RG: Following the success of the first game, how did you approach the sequel?

JT: Each time you have to make it bigger and better and more sophisticated. Thankfully Mark suggested the modern setting, as there was only a certain amount you could do with ornamental gardens and stuff like that. So once we took it to New York it gave us quite a bit of variety.

RG: The original appeared on the C64 and a couple of other platforms, whereas the sequel cropped up on just about every format going. Was it difficult to manage all the ports?

JT: With Ninja 2, Mev Dinc was working on the Spectrum version at the same time as I was working on the C64 version, so there was a certain amount of discussion about ideas for the game. Atari ST and Amiga versions were done as well, and we were sort of involved in those too – supplying source code and things like that – but in reality they were done by other programmers. Co-ordinating it was difficult, because in those days the code was very different. It's not like you were writing in C.

RG: Can you recall what happened to the versions of The Last Ninja for the Spectrum, Amstrad and Atari 800 that were advertised but never released?

JT: I can't exactly remember. I know several versions were started but I don't think they ever got anywhere. They weren't cancelled as such, but maybe they were too challenging for the programmers.

RG: The Last Ninja is widely regarded as one of the best C64 games ever. Do you still feel proud to be part of that?

JT: I do, actually. Obviously at the time I was very proud of it, and I've been amazed by just how much of a name it made. When I look back at it, having played it on an emulator, I'm not quite sure why it was so spectacularly received. I don't know. I guess all the right elements came together at the time.

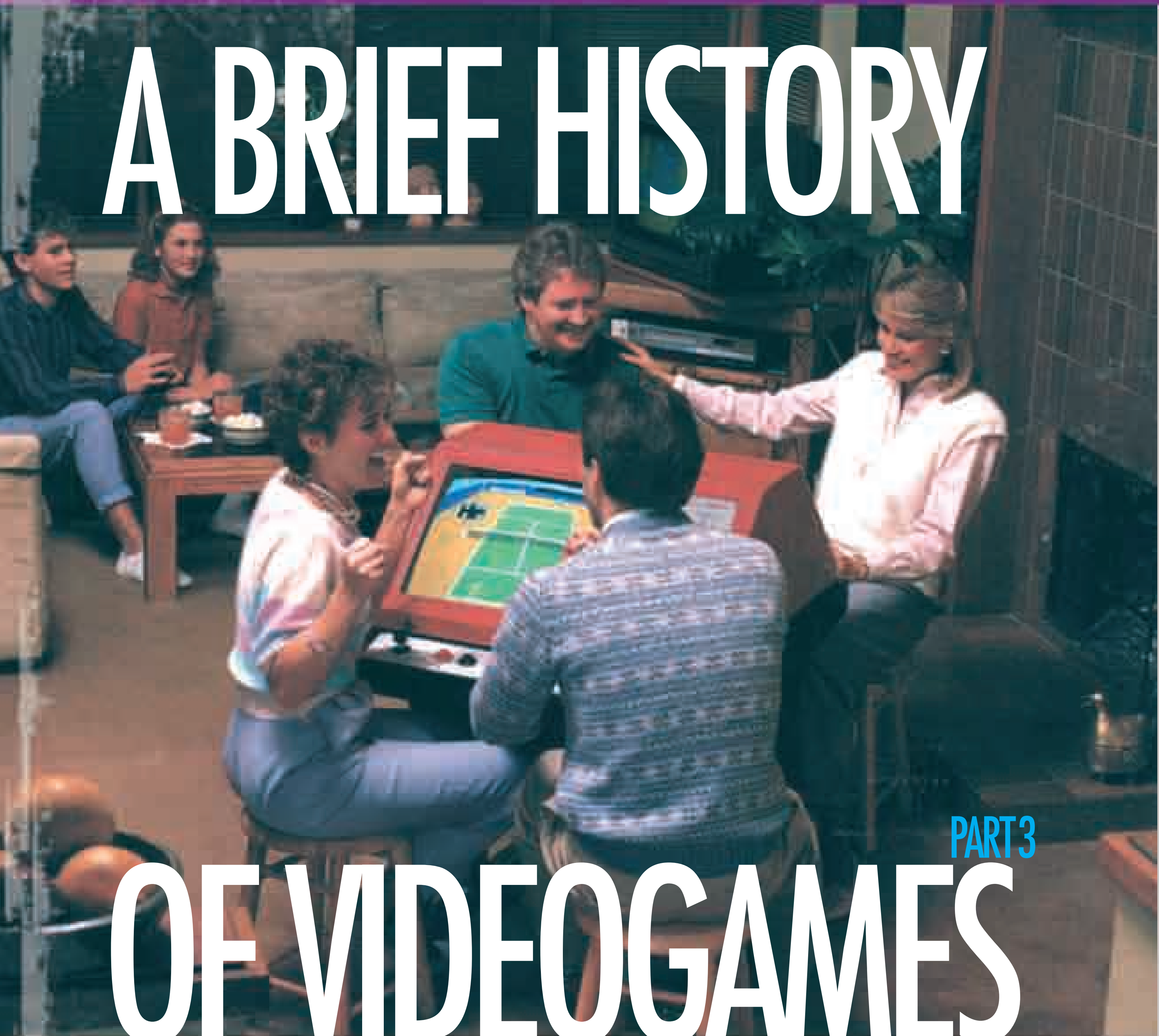


The New York setting allowed graphic artist Hugh Riley to create more varied screens

eMag

A BRIEF HISTORY OF VIDEOGAMES

PART 3



By 1982, Nolan Bushnell was safely distanced from his once great Atari – peddling pizzas as a way to lure children into his gingerbread arcades – leaving a directionless corporate entity to re-educate its staff on the intricacies of heartless profiteering. Before the power suits came close to realising their own ineptitude, they had shown the broad side of a shovel to the back of Atari's head and were busy burying it in a shallow grave. But it didn't take long before a couple of perceptive apprentices would see the devastating market shakeout as a new opportunity. In this final instalment, Spanner Spencer charts the history of videogames from the spectacular videogame crash of 1983 to the release of Sony's irrepressible PlayStation in 1995...

After the ROM cartridge revolution, everyone and his sister wanted to board the proliferating console bandwagon. Management at Mattel was initially unwilling to go up against Atari and poured its resources into the handheld electronic games line. This proved to be massively popular and, by 1980, the company felt confident enough in its status within the industry to have a bash at console production – and so the Intellivision was born.

Rather than go head to head with the big boys, Mattel steered away from arcade games and aimed towards the sports-simulation market base it had built up with the handhelds. Before long, Mattel had licensed every conceivable sport from its respective leading association, luring a whole new range of gamers who would otherwise have to go outside and play those sports for real.

Taking a step back from Ralph Baer's established concept of playing games on a TV set was the unique Vectrex system from General Consumer Electronics (taken over by board game giant Milton Bradley, which distributed the unit across Europe). Released at the 1982 CES show, this distinctive console sported a built-in, portrait-oriented 9in vector display allowing for a distinctive, clear definition not found in raster-based graphics. Its only real shortcoming was a lack of colour, so designers returned to the time-honoured idea of screen overlays.

Naturally, any vector-based console would have to supply Asteroids-style games if it wanted to make the living rooms, which the Vectrex did beautifully – a clone of Atari's arcade stomper called Mine Storm was built into the system. Only around two dozen games were released for the Vectrex during its working life, yet they were unique enough and of sufficiently high quality to generate an active following that's thriving today more than ever.

Atari finally made it around to the VCS update that Nolan Bushnell had suggested in 1978, in the shape of the ill-fated 5200 console. Developers were so unhappy with the controllers that they actively tried to stop the unit from going to manufacture until improvements were made. Ray Kassar (Atari's CEO) ignored their pleas and pushed ahead with the unsatisfactory hardware. Despite its obvious technological improvements over the VCS (remarketed as the 2600 after the 5200's release), it cost more and looked worse than its closest rival, the ColecoVision.

Coleco still had one or two fingernails left after the market troubles in 1978 and was just managing to hold on by following Mattel's example – cashing in on the profitable, if short-lived, handheld craze. Coleco's deft use of the handheld market raised enough money for it to develop a console capable of playing arcade-quality games. Sideline markets of tabletop games and third-party software made the company a very alluring business partner for coin-op manufacturers wanting to maximise on licensing revenues.

When the ColecoVision was released in 1982, the 2600 already had a back catalogue of over 100 games and Mattel had its 'sporting' corner of the market nicely wrapped up, so the newcomer would have to do



This 1980s ad family are clearly delighted with their new Vectrex arcade system

something spectacular to find its way onto the shelves. It couldn't afford to compete with Atari for the big-name arcade licences, but Coleco seemed adept at picking out lesser-known, highly playable titles that made superb home conversions, all the while building excellent relations with coin-op developers.

Despite the Donkey Kong phenomenon that had hit the arcade world, Nintendo was still a relatively small company – Nintendo of America especially so – and while all the console jockeys were queuing up to license the gorilla, Coleco was the one to bag it with the promise of taking the title to multiple formats. Coleco's deal was for a six-month exclusive licence, and the first home version was to be the flagship release packaged with its brand new console. Shrewdly, it held off any third-party ports to the 2600 or Intellivision, using Donkey Kong



Much to Atari's chagrin, an expansion module was available that enabled the Colecovision to run the massive back catalogue of VCS games



to establish its machine before cashing in on the franchise.

Pac-Man chokes

In 1981, an Atari executive called Joe Robbins had entered into a legal settlement with Namco, swapping his company's cow for a handful of Japanese magic beans. Although the apparently duff deal cost him his job, he would later be venerated when one of those beans grew into the rights to a home version of Pac-Man.

As of 1982, Atari defector Activision had surpassed its old premier as the fastest-growing company in American history. Desperate to reclaim its title, Atari wasted absolutely no time in churning out the most eagerly awaited home console game of all time – the 2600 version of Pac-Man. In an effort to hasten production, development was farmed out to programmer Tod Frye with the promise of royalties being paid on manufacture – rather than sales – if he provided a fast turnaround of code. With a deal like that, he would cash in even if the game bombed.

Due to the preordained success that anything with 'Pac-Man' written on the box would bring, the drunken lemming working the controls in Atari's head decided it should manufacture 12 million cartridges, even though market research had suggested there were, at most, 10 million 2600 units in use.

Frye's Pac-Man didn't chomp, it sucked. The stilted animation was horrendously jerky and the screen flickering so bad the ghosts would evaporate for most of the game. Still, 7 million cartridges left the shelves in April 1982 before word of its comprehensive unplayable-ness spread. This kind of perfunctory trash was becoming indicative of videogames in general, and not just from Atari. The industry was so proliferate that manufacturers were turning out anything and everything as long as it was shaped like a game cartridge, and the more junk they

›Monkey business

As the ColecoVision boxes were being sealed and the warehouses stocked, a Tiger Electronics employee saw the Donkey Kong arcade machine on a trip to Tokyo and decided it would make an excellent licence for one of Tiger's handheld games.

But instead of asking Nintendo, he mistakenly approached Universal Studios, owners of the King Kong copyright, for permission to produce a portable version of its arcade game. The perplexed lawyers at Universal undertook a copyright search, uncovered no reason why Tiger could not be granted a licence to produce a King Kong game, and approved it. Tiger then set about using their new licence to make a handheld version of Nintendo's Donkey Kong arcade machine!

The search also brought Universal to soon discover the new agreement Coleco had with Nintendo to license its Donkey Kong title. After a brief stint of decidedly inadequate research, the studio demanded that Coleco immediately cease all use of the Donkey Kong franchise as it clearly infringed on their ownership of the title, character and story of King Kong. Panicked by the awesome legal weight of Universal bearing down on the eve of the ColecoVision's launch, the console manufacturers made a rash agreement to pay royalties to Universal on its forthcoming Donkey Kong revenues.

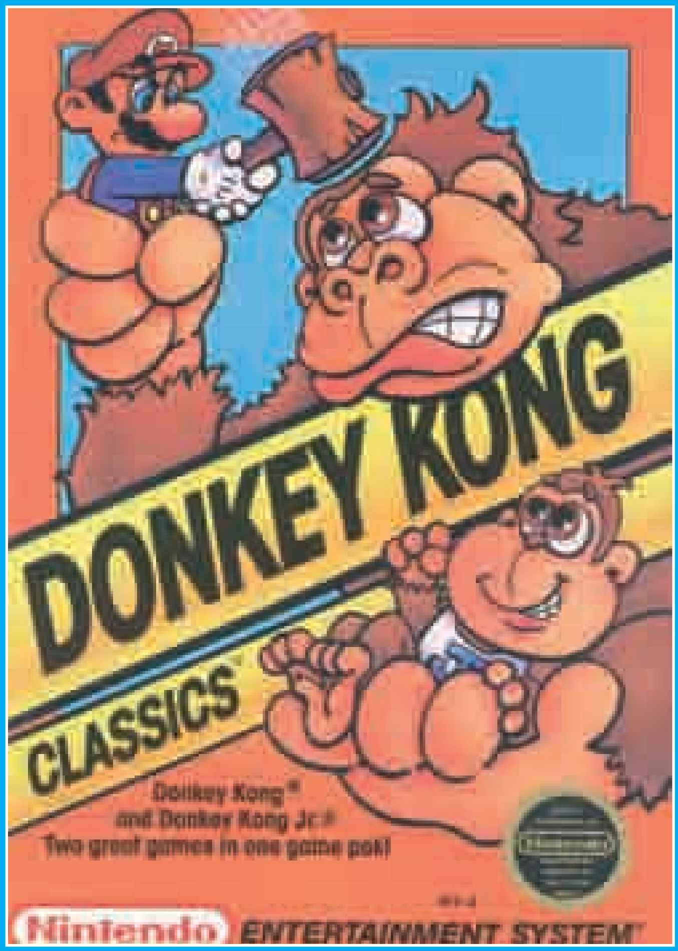
Nintendo, who had made around US$180 million from the coin-op and set up dozens of merchandising licences by this time, were likewise instructed to discontinue all marketing of Donkey Kong and produce an immediate account of all profits from the title, or face harsh prosecution.

But the Japanese company did not back down so easily. Its legal associate for Nintendo of America, Howard Lincoln, had proven himself very capable when it came to licensing agreements and could see no reason why reason Nintendo was accountable to Universal Studios. For one thing, he had been very cautious about the agreement with Coleco and written a clause absolving Nintendo of any liability from legal action brought about by third-party licences.

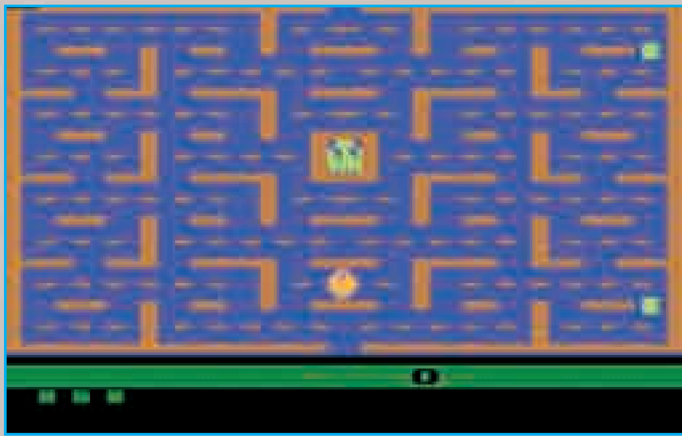
Universal was furious that some upstart Japanese company had the temerity to say no to them, and began throwing its many legal toys out of its gargantuan corporate cot. On 29 June 1982, it filed a suit against Nintendo for infringement of its copyright ownership of King Kong by virtue of agreement with RKO Pictures, producers of the original 1933 movie. Universal then proceeded to contact all Nintendo's licensees and threaten them with similar legal action if they did not immediately discontinue their association with the games manufacturer – and most of them promptly did.

When the case went to court, Lincoln hurled a legal barrel at Universal that knocked it clear off its lofty platform. It transpired that in 1975, Universal had successfully taken RKO Pictures to court claiming the image and story of King Kong to be over 40 years old, and therefore in the public domain, all so it could remake the movie without buying any rights. The case quickly fell apart and Universal were ordered to pay legal fees and lost revenues not only to Nintendo, but to the long line of licensees (including Coleco) it had bullied out of business.

Nintendo was also offered the choice of claiming either damages or the licensing fees Universal had collected from Tiger Electronics. They chose to take the latter – publicly embarrassing Universal Studios for its trouble.



Despite Universal's chest-beating, Nintendo delivered a hammer blow to the studio in the courts





Pac-Man on the 2600 was a rushed travesty. The rot was beginning to set in...

turned out, the more consumers they turned off.

But Atari's big guns were not concerned, as Steve Ross, head of Warner Communications (Atari's parent company), had made a deal with Steven Spielberg to bring his irksome little alien E.T. to the 2600. He promised Spielberg in July of 1982 that the cartridge would be on the shelves for Christmas. The whole deal, including a guaranteed US$25 million royalty cheque from the game, was a sweetener designed to temp Spielberg into making films for Warner.

At the end of July, when the 2600 development team at Atari heard they had to have an E.T. game out for Christmas, none of the programmers would touch the project. Ray Kassar fell back on his buddy Howard Scott Warshaw to get the hopeless venture under way. The pair had a very amicable history, as Warshaw's previous games (Yar's Revenge and Raiders of the Lost Ark) had both been excellent sellers. An undisclosed agreement was reached and Warshaw wrote the game in under five weeks – no small feat. But Warshaw's E.T. was *so* bad, it actually caused the videogame industry to implode.

By some miracle, Atari managed to make good on Steve Ross's loopy promise and have E.T. on the shelves for Christmas. Inexplicably, he ordered his minions to manufacture 5 million units straight off the mark – this was an unheard-of quantity for an untested game, and the few that actually sold were soon returned. The shoddiness of the game – destined to save the industry, yet surmounting to nothing more than dropping a badly drawn alien dwarf into holes in the ground – did an elaborate tap dance on the minefield that had become the videogame industry. People stopped buying games. Completely.

To be fair to Warshaw, the industry had been struggling all year, though its troubles were somewhat masked by the immense wealth of the controlling corporations. The decline in arcade spending coupled with the demand for newer, more expensive machines meant the small businesses who kept a coin-op in the corner had stopped turning a profit – and rid themselves of their machines. Software companies were rushing arcade conversions and producing substandard in-house developments – planting a seed of doubt in people's minds as to the worth of home consoles – and as competition for licences became fiercer, the price of cartridges rose in direct proportion to the declining quality of the games. Several large suppliers of videogames began reducing, and even cancelling, their orders.

In December 1982, Atari suddenly back-pedalled on its predictions for a 50% sales increase in the fourth quarter, putting out a revised estimate of 10-15%. The now infamous Ray Kassar sold a chunk of his Warner stock only minutes before announcing Atari's anticipated financial problems, causing a panic on the Stock Exchange that led Warner's value to drastically plummet, further decimating the videogame business.

Surviving the fallout

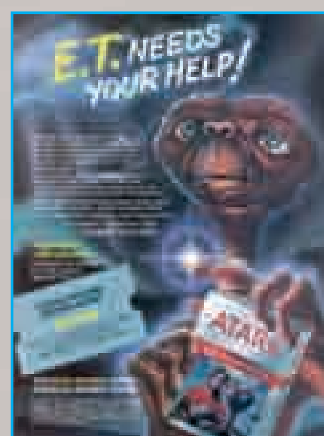
The Japanese (and European) markets didn't suffer quite the same devastation, though the American manufacturing standstill after the 1982 Christmas sales bloodbath certainly didn't help keep customers interested, and the square eyes of the world's gaming community turned toward the increasingly affordable home computing market.

The Japanese market was dominated overnight by the still burgeoning Nintendo with the release of its Famicom console in 1983 (for details about this system, see *Retro Gamer* Issue 16). Bearing in mind its difficulties breaking into the US arcade scene, Nintendo decided to contact Atari to help establish its new console internationally. Ray Kassar was approached with an offer to sell the Famicom under the Atari label everywhere except Japan. What Nintendo didn't realise was that Atari was developing the 7800 console (successor to the 5200) at that very moment. If it had the licence to sell the Famicom as well, it would effectively own the competition – if the 7800 did well, it could destroy the Famicom; if the 7800 failed, it had Nintendo's machine to fall back on. Atari couldn't lose.

Kassar, who was still being dogged by accusations of insider trading after selling his Warner stock, had a tiff with Nintendo after seeing Coleco's new home computer, the Adam, playing a version of Donkey Kong at its launch. Coleco owned the videogame rights, but not the home computer rights, which were Atari's. By the time negotiations were back on track, Kassar had jumped from Atari before he was pushed, and the licence agreement never happened.

Atari had been decimated by the previous Christmas washout and the new CEO, James Morgan, rationalised the company with a chainsaw. Thousands of jobs were lost and the business went from occupying 49 buildings to just four.

Coleco faired equally badly. Arnold Greenberg was planning to launch his home computer brainchild, the Adam, when the line of soft toys the company had recently purchased took the toy market by storm. Cabbage Patch Kids were a massive hit, and





Unfortunately for Atari, few gamers were stupid enough to answer E.T.'s call for aid



Following the fallout in America, Nintendo and Sega quickly entered the home console market with the Famicom and SG-1000 systems

despite offering a free Kid to anyone who bought a ColecoVision and a game together, its gaming market was lost.

When Coleco rushed the Adam to the shelves, it was riddled with problems and the majority of the astronomical profits garnered from Cabbage Patch Kids were squandered trying to keep the computing division afloat. Within two years, both gaming and doll sales dried up, and Coleco was set adrift.

Mattel were perhaps the only company with the potential to survive the crash, and would have done if it hadn't been for poor marketing decisions. The Intellivision performed well in terms of game sales, but in an effort to compete with the downwardly spiralling cost of hardware, Mattel absorbed significant losses in order to put its machines into the shops. The more it sold, the greater those losses, and by the time Coleco's ugly dolls were of no more interest to kids, Mattel had dropped its electronics division completely.

Magnavox, despite giving birth to the whole industry, never managed to recapture its former glory. The G7000/Odyssey2 initially sold well across Europe and in Brazil, but its follow-up console, the G7400, was so short-lived that for over 10 years collectors weren't even sure it had existed. Eventually, this Holy Grail of collectable consoles began turning up across Europe, but very few dedicated software titles for this machine were ever made.

In 1983, while so many other companies were pulling out and shutting down, Sega decided to enter the home console campaigns with the SG-1000. Due to Nintendo's stranglehold on the home market, this advanced system never found a foothold, and only made it off Japanese shores as far as Australia (distributed by John Sands) and New Zealand (distributed by Grandstand Leisure).

Naturally, things didn't sit still at the tumultuous Atari. The notes required to keep the company afloat were too much for Warner, which decided to cut its losses. Atari's consumer games division was sold off to none other than Jack 'Darth' Tramiel in mid-1984. Tramiel had just been pushed out of Commodore for his 'business' practices, and wanted to use Atari to jump-start his new line of powerful, affordable home computers. The coin-op branch was sold off to Atari's former business partner, Namco. In the space of 12 months, the entire videogame industry had vanished, and all that was left was a black hole of avarice.

Rising sun

The Famicom had tried and failed to enter America via the Atari route just as suppliers had started lynching anyone mentioning the words 'video' and 'game' in the same sentence, and it was 1985 before Nintendo once again tried to spread the word of its gospel. This time, it decided to go it alone.

Nintendo of America's President, Minoru Arakawa, decided to rename his machine the Advanced Video System (AVS), a little more in keeping with established Western trends, and attempted to release it at the 1985 January CES. No one went near the Nintendo stall, for fear they might catch some kind of fatal videogame disease. Arakawa realised the unit must be touted as something other than a videogame system. For the July show, the AVS was dubbed the Nintendo Entertainment System, and was given a back seat to two fairly superfluous peripherals (a light gun and a moderately interactive robot) so it could be sold as a new toy, rather than a videogame. Interest picked up.

Next he took the product to launch in New York, the notoriously difficult entertainment capital of America, and offered a risky sale-or-return option to suppliers for the Christmas season. This was a bold move



After successful debuts in the East, Nintendo and Sega respectively launched their NES and Master System consoles throughout the rest of the world

›Nintendo's insecurity system

In an effort to control its game system and retain its prestigious image, Nintendo was very strict with its licensing agreements. Licensees were only allowed to produce five NES games a year and couldn't port those games to other systems for two years after their initial release.

To enforce these policies, the NES console was fitted with a security system called the 10NES program. The base unit had a master chip that sent a random code to the cartridge's slave chip, fitted during manufacture, which returned an initialisation key and allowed the game to play. Whenever a third party developed a new game, Nintendo would take that game, put it in a cartridge containing a 10NES chip and sell it back to the developer who could then market it. This system meant Nintendo gleaned profits on manufacture, rather than sale, of third-party software.

Power of Tengen

When Warner sold Atari to Namco, the new owner soon decided the deal was not as lucrative as it had hoped and offloaded the old coin-op division onto one of its American-based employees, Hideyuki Nakajima. Nakajima then formed the Tengen branch of Atari Games through which they could produce home videogames. The 2600 had seen better days, the 7800 wasn't making any headway and Sega wasn't selling licences for the Master System, so there was really only one console to develop for – the NES. Nakajima approached Nintendo and asked for a special licence that precluded the five-game, exclusive stipulation, since he was the only way Nintendo would get access to Atari's coin-op library. Nintendo refused, and Nakajima accepted the standard licence anyway.

But for almost a year prior to taking a Nintendo licence, Atari Games had been attempting to reverse-engineer the 10NES program in the hope of circumventing it and gaining access to NES customers without the restraint of the exclusivity policy. For quite some time, Atari Games' attempts to break the code were unsuccessful, until it was finally cracked by the lawyers, rather than the engineers.

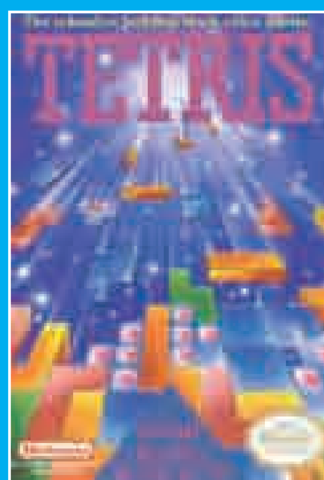
Atari submitted a false application to the copyright office requesting a copy of the 10NES code for an upcoming lawsuit Nintendo had supposedly filed against it. This source code was then used to write Atari Games' own version of the security program, dubbed the Rabbit. Before manufacturing any non-licensed games, Atari Games filed suit against Nintendo for improperly using its patent to create a monopoly, demanding US$100 million damages in return.

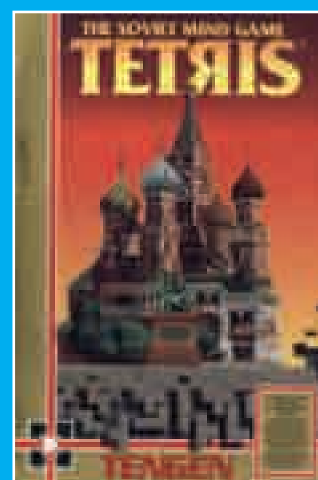
It's unlikely that Nakajima ever expected Nintendo to pay up. This suit was a meant as a pre-emptive strike against the injunctions Nintendo would undoubtedly file when Tengen released its unauthorised NES games. Atari Games was poised to steal the NES system out from under its creators.

By this time, Nintendo was no stranger to the legal system and filed a countersuit against Atari Games for breach of contract. It also approached retailers and warned them they would be open to legal action if they continued to stock Tengen products. Since Nintendo was considerably more of a meal ticket for the shop owners than Tengen, most complied without consternation. This knocked Atari Games off guard and left it with a huge backlog of expensive inventory while the case found its way around the slow court system.

When the case finally appeared before a judge, Atari Games claimed that the Rabbit program was written in a different language to the 10NES and only reproduced certain elements of the security system to allow functionality and interoperability of its games. Although the NES console hardware was not protected by any copyrights or patents, the 10NES system (and its code) was. Nintendo showed the court how the Rabbit program reproduced aspects of the 10NES code that were not necessary for interoperability and brought to light Atari Games' illegal acquisition of the 10NES source code from the copyright office.

Atari Games did not dispute the claims against them and the court ruled in favour of Nintendo.





Tetris spelt double trouble for Atari, with the courts ruling that Nintendo owned the console rights to the game and that Atari had breached Nintendo's licensing contract by releasing unauthorised NES games

and could easily have been the downfall of Nintendo of America. Sales were good – though not great – but more significantly, most shops decided not to return their unsold stock, and kept it on the shelves. Nintendo had begun resuscitating the industry.

Sega, meanwhile, followed its SG-1000 Mark I and Mark II consoles with the new Mark III, a technologically superior machine to the NES, which had undergone market tests in Japan and was deemed ready for global sales.

Nintendo's few months' head start had not only seen the Famicom invade Japanese homes, but had also established throttlehold licensing contracts with most third-party developers prohibiting them from programming for other systems while under agreement. The dire shortage of Mark III games while the Famicom was getting its boots firmly under the table meant international markets would be Sega's only hope.

The Mark III was cosmetically redesigned into the Sega Master System, and toy giant Tonka was enlisted to handle the US launch and distribution. It would have been an uphill battle regardless, but Tonka seemed unwilling or unable to achieve any impact with the new machine, and after two years of disappointing sales Sega took the product back to attempt better market penetration itself. European and Brazilian trading turned out to be excellent, as the Nintendo's advertising drive had been less aggressive there than in the US. Officially sanctioned Master System clones are still on sale in Brazil to this day.

The Mathemagician

While the NES was showcased at the July CES, just over the ice cap in Russia a mathematician working at the Moscow Academy of Sciences had been inspired by 'pentominoes' to create a computer game on the Computer Centre's Electronica 60 system (not dissimilar to the PDP Steve Roberts had written Spacewar on). His name was Alexey Pajitnov and his game was called Tetris.

The name Tetris was derived from the game pieces that drifted down the screen called 'tetrominoes' – geometric shapes consisting of four squares connected orthogonally. With the help of 17-year-old Vadim



Alexey Pajitnov, the man behind Tetris, the most popular videogame ever created

Gerasimov, the game was ported to the IBM PC and soon spread around Moscow.

The PC version migrated as far as the Institute of Computer Science in Budapest where it was converted to the Apple II and Commodore 64. It was the Hungarian versions that Robert Stein, president of English software house Andromeda, saw on a visit to Budapest. He made immediate moves to become involved at the ground level.

Tracking down the game's designer was no small task, so Stein decided to begin selling licences for Tetris before he actually owned them. Initially, he sold computer game rights to Mirrorsoft in Europe and Spectrum Holobyte in America – two companies both owned by pension-pilferer Robert Maxwell.

Russia was still new to the computer business (especially the games industry) and copies of Tetris were handed around quite freely, although these were – technically speaking – pirate copies, including the different versions now appearing in Hungary. In Soviet Russia, private industry was not allowed and the only means by which software could be exported was through a Government organisation called Elektronorgtechnica, or ELORG.

After tracking down Pajitnov, Stein flew to Moscow to finalise arrangements. Unprepared for the intricacies of dealing with the Soviets, Stein wound up coming away without any of the rights he had already sold for the computer games that were hitting the shelves at that very moment.

Stein threatened to make an international incident out of the whole thing, so ELORG agreed to allow him the computer game rights dependent on a back payment for licences he had already sold. This was just as both Mirrorsoft and Spectrum Holobyte sublicensed what they thought were their rights to the Japanese market. Mirrorsoft sold the Japanese PC and coin-op rights to Atari Games (formerly the arcade division of Atari), while Spectrum Holobyte sold the exact same licences to an entrepreneur called Henk Rogers of Bullet-Proof Software, who was closely affiliated with Nintendo.

Infighting began between the two Mirror Group companies, and Big Bob Maxwell personally settled the dispute by siding with Mirrorsoft. And now that Atari Games owned the Japanese rights (or thought it did), it went on to sub-sublease the coin-op rights to Sega and the console and computer rights to Bullet-Proof. Phew!

Bullet-Proof's Henk Rogers realised that no one yet owned the handheld rights to Tetris and flew out to ELORG to make the deal himself. To help his case, he presented them with his new NES version of Tetris. ELORG was adamant it had never sold any such licence. Rogers explained the complicated paper trail by which he had come to purchase the rights from Atari, and not only negotiated the handheld license he had set out for, but by bringing Nintendo into the dialogue, also obtained the worldwide videogame rights.

Atari Games could not publish home videogames under the Atari name, as this was now owned by Jack Tramiel, so the Tengen banner was created for the home market (following Nolan Bushnell's lead, Tengen is a word from the Japanese strategy game Go, meaning the centre of the board).

Tengen was ordered to immediately recall its videogame version of Tetris that had just been released to exceptional sales. Big Bob once again decided to get involved. Using his media-empire connections, he tried to draw both the British and Soviet governments into the fray, and reportedly received a personal message from Mikhail Gorbachev telling him "not to worry about these Japanese" – which turned out to be bad advice.

When the whole debacle went to court, Atari Games based its claim to the NES Tetris on the fact that the system was actually a computer, as dictated by the Japanese name Famicom (Family Computer) and the presence of an expansion slot. Nintendo's assertion (backed up by the Russians) was simply that neither Mirrorsoft nor Spectrum Holobyte ever actually owned the rights they subsequently sold. Before the trial had even properly begun, Judge Smith deemed Nintendo's case to be so strong they would certainly prevail, and Tengen was forced to remove its cartridge from sale.

When Nintendo finally secured its rights, it was already 1989 and Tetris came at just the right time to become the flagship for its next revolution. Incidentally, Alexey Pajitnov never made a penny on his controversial game until all rights sold by ELORG reverted to him in 1996. By that time, he was living in America and had formed the Tetris Company, and finally began collecting on licences for the most popular videogame ever made.

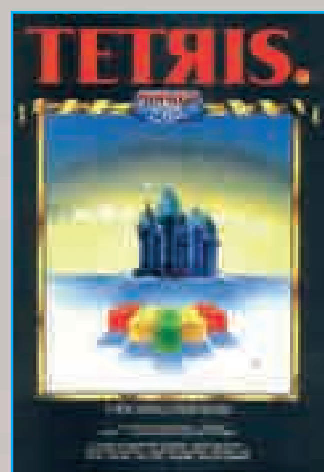
New ages

The market was finally stable, and the world wanted videogames once again. The industry reached the same point it had been at in 1982; people were crying out for great games, but losing interest in the available systems.

NEC (in association with Hudson Soft, a software developer for the NES from Hokkaido) was the first to appear with a next-gen machine – the PC Engine (no relation to IBM). Released in late 1987 in Japan, this hot new machine housed a hybrid 8/16-bit processor (NEC marketed the PC Engine as a 16-bit console, although it actually used two 8-bit processors with a 16-bit graphics chip) and went down a storm in its native country. It was renamed the TurboGrafx-16 for the Western market, and was released in 1989 to a fairly indifferent reception. As often happened, the translation from East to West did not dictate similar market trends, and NEC failed to sufficiently answer the aggressive advertising campaigns of Sega and Nintendo.

Many of NEC's major game successes in Japan were RPGs, and converting them to English was too mammoth a task, so poor-quality titles began slipping through just to shore up the games library. Within two weeks of the TurboGrafx's CD-ROM attachment appearing in the shops, Sega had stepped up the competition with the first true 16-bit console, dubbed the Mega Drive.

Since the days of the Master System, Sega had built up a huge arcade following with its excellent coin-op titles, which now had the





'A New World from Russia'... 'official' versions of Tetris were released for every popular format of the day

promise of appearing in homes. To try to break Nintendo's forceful control over third-party developers, Electronic Arts was drafted in for the Mega Drive's opening games.

EA founder and CEO, Trip Hawkins, had never entered into Nintendo's strict licensing agreements as he felt the NES was unable to do justice to EA's impressive computer games. By the time the final scores were in and Nintendo was dominating the market, Electronic Arts had missed the 8-bit boat and was keen not to do the same with the new 16-bit scene.

Either by coincidence or design, Sega approached struggling campaigners Atari Corporation (the old consumer division now owned by Jack Tramiel) with an increasingly familiar offer: did they want to handle international manufacture and distribution of a new console? But Tramiel's ruthless nature clashed badly with the Japanese frame of mind, and negotiations quickly fell part. After their abortive dealings with Tonka, Sega decided there was no option but to handle overseas business personally.

The system sold well internationally (though Japanese gamers remained loyal to Nintendo), making headway on the strength of the Sega arcade conversions and EA's sports titles. It would be fully two years before Nintendo answered the 16-bit challenge with the release of the Super Famicom/SNES, which in hindsight, many see as one of



Nintendo's masterstroke was to bundle the original GameBoy release with Tetris...

the company's first big mistakes. But its next endeavour would more than take the pressure off – the return of the handheld.

It had been a good 10 years since handhelds last captured the imagination of the gaming community, mainly in the form of single-game, fixed-display devices such as Mattel's LED portable sports titles and Nintendo's Game & Watch series, invented by veteran engineer Gumpei Yokoi.

It was Yokoi who was about to take up his old sword and lay siege to the industry he had helped create with a new, cheap, efficient handheld console called GameBoy. Nintendo had held back its recently acquired Tetris licence as a pack-in game for this ideally suited system, which went on to become the most popular games console to date (for more details, see *Retro Gamer* Issue 9).



While Nintendo was reluctant to introduce a new machine that would supersede the NES, Sega revealed the first 16-bit console in the sleek shape of the Mega Drive

In response, Sega released the Game Gear (effectively a portable Master System), and Atari acquired the Lynx (developed by ex-Amiga engineers at Epyx, who left the company once dealings began with Atari). Despite its hefty price tag, the Lynx was the superior system, though Atari's poor reputation and lack of advertising made for a tragically short lifespan.

Even the PC Engine was redesigned into a nifty handheld – the PC Engine GT (TurboExpress in the US) – that, due to the slim storage format used by the original console, was able to play standard PC Engine games. Its small screen, poor battery life and lack of support made for the quick failure of an otherwise excellent idea.

The coin-op's second coming

In 1990, the console competitions took a unusual slant when software developers SNK released its first attempt at hardware – a 24-bit console which was to cater for both the arcade and the home. The Multi Video System allowed arcade owners to switch between games very easily without any modification to the cabinet, and the powerful system allowed for large, colourful, flashy arcade-style games. SNK tried to bring the system into people's homes as the Neo Geo, using the exact code as the arcade machines.

The enormous price tag meant that only flamboyant arcade junkies could afford either the base unit or its cartridges, many of which were practically the same price as the competition's consoles. But in terms of commercial costs, the prices were quite acceptable and Neo Geo became well established in the arcade.

It had been apparent for many years about how closely related the commercial and home videogame scenes were, with arcades setting trends that console manufacturers would then invest in for the home market. Capcom, a small but successful coin-op developer, could trace the majority of its successes to just two engineers: Tokuro Fujiwara and Yoshiki Okamoto. Between them, the pair used a friendly sense of competition to create some of the most successful arcade titles of the 80s (Commando, Ghosts 'n' Goblins, 1942...).

When Okamoto reportedly saw Technos' Double Dragon II, he set his team to the task of creating a sequel to the moderately successful one-on-one beat-em-up, Street Fighter.

He had the notion of simplifying the control system while maintaining the enjoyment of fighting games by way of an 'attack' button. All that was required to make the characters perform impressive combinations was pounding on that single button.

When the game was debuted at a trade show, it appeared that Street Fighter had made more of an impact than Okamoto thought, and received more than a few complaints that this sequel "was not Street Fighter!" The name was changed to Final Fight for its 1989 release, and became the new yardstick by which all scrolling fighting games were measured. But the idea of a continuation to Street Fighter was not dropped, and a new approach that retained many of the elements from the first game was adopted. The hook this time would be to fixate players with finding the hidden moves for the very different international fighters. The huge amount of design work that went into Street Fighter II: The World Warrior paid off, and in 1991, for the first time since Pac-Man, arcade operators were lining up row upon row of identical machines, and people were falling over each other to get into the arcades. This would be a licence that console manufacturers would stand in

front of blue fireballs to obtain.

In 1991, Sega made a concerted push to put Mega Drives into people's homes. The cost of the console was dropped substantially and a new game that had been developed by a young designer named Yuji Naka (of Phantasy Star fame) to combat Nintendo's mascot, Mario, was packaged with the cheaper machines. That new game was Sonic the Hedgehog.

Nintendo had kept its fans waiting too long for the Western release of the technologically superior SNES, and when it finally came along in late 1991 with a much larger price tag than the Mega Drive, many avid Nintendo fans decided to take a chance on this spiky blue rodent they had been hearing so much about. To keep the pressure on, Sega pounded out a constant stream of quality titles while Nintendo users were left waiting for Shigeru Miyamoto's annual Christmas delight. When Nintendo made an effort to catch up by dropping the price of the SNES to match the Mega Drive, Sega were ready and further reduced its system to practically cost price.

As Sega pulled ahead, revolt began in the ranks of Nintendo's third-party developers. Acclaim was the first to make games for the Mega Drive while also developing for Nintendo, casually approaching Nintendo and telling them how business was going to be from then on. Other software houses quickly followed suit.

NEC decided to pull out of the market as there was apparently no prize for third place, and it was then that the two leading contenders both suddenly realised their machines needed what the TurboGrafx had had for some time: CD-ROMs.

Nintendo PlayStation?

Sega was first off the mark by partnering itself with CD experts, Sony. Together they designed an add-on CD drive for the Mega Drive with the wonderfully

›The JAMMA standard

As the US videogame industry collapsed, the rest of the world kept going as best it could without the enormous infusion from America.

The arcades were suffering badly, as the influx of new games that set the trend for the lucrative home market slowed to a crawl. Operators needed new machines to keep up consumer interest – once people stopped going into arcades, there was no way to inform them about hot new products.

Although manufacturers of coin-op machines often had their own standards for wiring, buying a new game generally meant replacing the whole cabinet, which severely increased the unit cost. Rewiring an existing cabinet and replacing the game components was not impossible, but your garden-variety arcade operator was hardly in a position to be able to do this, making them very nervous about their next investment during such volatile times.

This unsystematic approach to cabinet wiring also created a lot of servicing problems, as repairs, spares and augmentations had no uniformity – after a year or two in the field, an arcade game could become effectively irreparable.

The Japanese Amusement Machine Manufacturers Association (or JAMMA) decided to take control of the situation and persuaded many of the big name manufacturers that it would be in their best long-term interests if they helped the arcade owners to keep things fresh at their end. In 1985, they organised a forum whereby a standard for arcade hardware interconnection – including the monitor, cabinet and controls – could be decided upon.

Previously, the ancillary control systems of an arcade machine – such as joysticks, buttons, audio devices, coin mechanisms etc – were hardwired to the game's printed circuit board in the factory (or botched together by adventurous DIY arcade hacks) and were intended to remain in place. The new JAMMA standard attached all the cabinet features to the game board by way of an edge connector, so a simple, straightforward swap-out of the circuit board by a member of staff was all that was required to install a new game.

This new system revolutionised the worldwide arcade industry, and it can reasonably be surmised that JAMMA kept the wounded arcade videogame market on life support until public industry returned toward the latter half of the 1980s.

History repeating

There was still some turbulence on the arcade floor, mainly from Sega, which had seen considerable success with its non-standard machines – principally in the form of hydraulic cabinets like Hang-On and, particularly, Space Harrier. These were considerably more popular with players than with arcade operators. Not only were these deluxe machines more costly to run and took up the space of three to five uprights, their inflated purchase price meant breakdowns lost arcades considerably more revenue than a faulty JAMMA system would.



The same year as the JAMMA forum was organised, Sega was pushing cabinet designs to extremes with games like Space Harrier

As the years have progressed since then, arcades have veered more toward graphically realistic simulators than games, and unique cabinets are now beginning to dominate once again. But this time, these aren't simply non-standard uprights, but hefty, dedicated and wildly expensive monsters. Our once-beloved arcades are returning to a state of collapse for exactly the same reasons as before, only JAMMA is no longer waiting in the wings ready to bail out the short-sighted, avaricious coin-op developers. Enjoy your arcades while you still have them, as it looks as though history is about to repeat itself.





Capcom kicked the lulling arcade industry back into life with the release of Final Fight and Street Fighter II



One of the most important killer apps ever released, Sonic the Hedgehog blasted the Mega Drive into the stratosphere

esoteric name of Mega-CD. Nintendo also entered into a collaboration with Sony to design the SNES CD-ROM drive, project name… wait for it… PlayStation!

Nintendo, which had been cagey from the start about allowing another company access to its technology, asked Sony to announce the new SNES drive at the 1992 CES, which it proudly did. The next day, Nintendo announced it was instead going into partnership with Philips to develop the SNES drive, publicly and wantonly humiliating Sony.

The head of the project's development at Sony, Ken Kutaragi, was furious and petitioned the board to allow him to develop the drive into a standalone unit and create a next-generation machine that would square up to the SNES. With some trepidation, Sony approved the PlayStation project.

The SNES CD-ROM drive never materialised, and Sony's wrath was brutal and swift; its world-beating videogame console – that could have been Nintendo's if not for its arrogant duplicity – once again remodelled the ever-changing, turbulent and inherently cruel videogame business.

A new generation of gamers, inaugurated in 1995 by Sony, will soon be in the perfect position to continue this endless story (which will undoubtedly contain as much scandal and bloodshed as ever). It will never be 'game over' for the industry, as old systems are revived and worshipped by the same players who spend billions every year on new technology. But perhaps we could pause our beloved games every so often, or offer up an extra credit in remembrance of the programmers, moguls and visionaries who fought to entertain us through our youth.



Our story ends with the release of the original Sony PlayStation in 1995. To date, over 100 million PlayStations have been sold worldwide, and that figure is soon to be eclipsed by sales of PlayStation 2…

GTW
GAMES THAT WEREN'T

Frank Gasking exhumes another three games that were subjected to a cruel premature burial, including a Sega licence gone wrong, a failed conversion of a C64 classic, and a rather startling Ultimate finding...

Cookie

BBC Micro, Ultimate, 1984

When thinking of lost Ultimate games, first on the list is the infamous Sabreman adventure Mire Mare. But unreleased C64 conversions of Lunar Jetman and Solar Jetman have been recovered, and now another long-lost Ultimate game has remarkably risen from the grave (or should that be trash can)... Cookie on the BBC Micro.

Originally released for the 16KB Spectrum in 1983, Cookie places you in control of Charlie the Chef, who keeps all his ingredients locked in the larder. The ingredients escape, though, bringing out various nasties with them. Charlie has to stun his ingredients with flour bombs and knock them into the mixing bowl, whilst ensuring the nasties are thrown into the trash.

Cookie's existence was a shock to all, especially the Stairway To Hell website (**www.stairwaytohell.com**), which has a page dedicated to recovering lost BBC Micro titles. Regular visitor Dick Greening caused shockwaves by contributing the unreleased (and complete!) disk image of Cookie in 2002. Remarkably, no official BBC Micro version was ever thought to exist until it surfaced. Even Rare's website states that Cookie was only ever released for the Spectrum.

Cookie programmer Paul Proctor recalls, "I did the BBC conversion as one of my first games – it contained all the elements of the original Speccy game and was fun to play!" We'd have to agree with Paul that he turned in an excellent port, with good use of colour to enhance the graphics, while the classic gameplay was left untouched.

As an added surprise, the game also featured musical treats composed by none other than Martin Galway – a find in itself. Great renditions of *Food Glorious Food* and other jingles added to what was already a fantastic conversion all round.

So how did Cookie manage to escape the dungeons of Ultimate/Rare? GTW attempted to contact Dick Greening to find out more, but couldn't track him down. Paul wasn't sure how the game sneaked out: "I can't remember why it was never released – maybe Ultimate thought it was slightly dated since it had Sabre Wulf out on the Speccy by then." So with other Ultimate BBC titles released it still remains a mystery why Cookie was canned, but crucially the game can now be enjoyed as originally intended. A fantastic discovery for the Beeb!



The BBC version of Cookie is a very credible port of the Spectrum original (right)

Sanxion

GBA, Thalamus Interactive, 2001



Following on from last month's Putty, yet more titles were planned from Thalamus Interactive. Acquiring a big name such as Thalamus had many advantages, one of which was the ability to access its old back catalogue. Plans were certainly made to do just that, by porting classic C64 titles to the GameBoy Colour and Advance.

One such title was Sanxion, to be developed for the GameBoy Advance as a revamped conversion of the classic C64 horizontal shooter by Stavros Fasoulas. "The GBA market had become saturated with licences and tie-ins, and competition became increasingly fierce," recalls Designer/Producer Andy Roberts, "so we decided to dip into the Thalamus back catalogue instead."

A day was initially spent brainstorming ideas for the game, where updated features were born such as new weaponry, bonus sequences (with rainbow-styled backdrops), special racing stages, end-of-level baddies and a new two-player link-up mode. There were also to be the obvious enhancements to graphics, sound and presentation to bring the game right up to date, whilst leaving the original gameplay intact.

Jon Wells was assigned for the conversion and, as with Putty, spent two weeks working on a small test demo whilst other projects went on. In its early stage, the demo didn't really push the GBA far, featuring ripped graphics from the C64 version (but lacking the original split-screen display) to demonstrate how the parallax layers could be incorporated onto the GBA. There was no Sanxion theme conversion, but an accurate cover of another of Rob Hubbard's classics, the theme from Lightforce. Finally there wasn't much to play or see apart from a controllable ship that could be sped up and slowed down, just like in the original game. It was merely the beginning, and would have greatly improved during full development.

But problems began before the game was properly started. It was found that interest in original product was deteriorating, especially on the GBA, and licences were becoming one-way traffic. As a result, Sanxion was put on hold indefinitely. The game was never pitched to any other company, and work was eventually moved to other projects. Sanxion was seen as too much of a risk to take and was sadly cancelled.

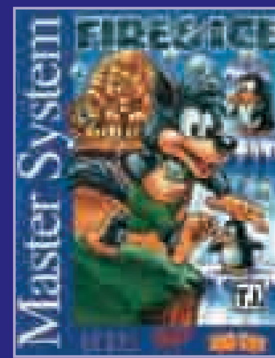
Thalamus Interactive never had the chance to re-release any of its back catalogue. Sanxion GBA came close, but not close enough... The video clip on the coverdisc is a small indication of what could have been.



Sanxion for the GBA was never developed beyond this promising tech-demo by Jon Wells

Fire and Ice

Sega 8/16-bit, Graftgold, 1993



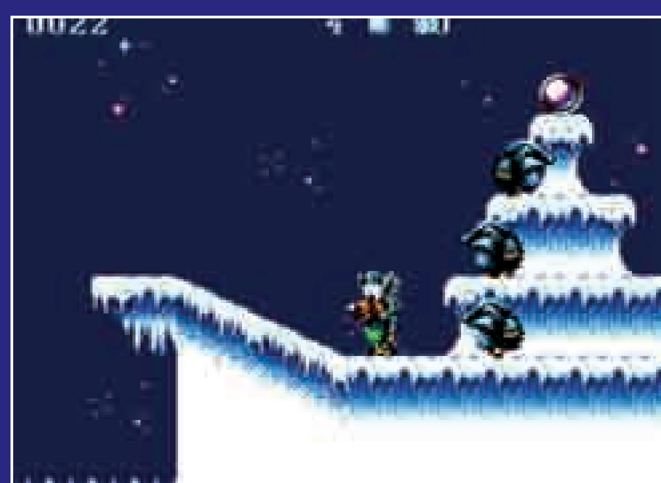
Following the immense success of Sonic the Hedgehog, colourful character-based platformers began flooding the market. It quickly became difficult to sort the good from the bad, but Graftgold's Fire and Ice succeeded in rising above the rubbish. Designed by Andrew Braybrook and originally released for the Amiga/ST, Fire and Ice starred 'Cool Coyote', whose mission was to battle through different levels in order to find and destroy an evil wizard.

Soon after its home computer release, Graftgold set its sights on the burgeoning console market. Teaming up with publishers Renegade, the pair approached Sega for permission to produce Fire and Ice on its platforms. But, to their horror, Virgin had beaten them and pitched the game conversion right under their noses! There was major uproar, and after many negotiations there was no choice but to let Virgin publish the game. Renegade and Virgin eventually came to agreement on the Master System release... but strangely it never happened.

Graftgold's Steve Turner is unable to shed much light on the situation. "As far as I remember, we finished Fire and Ice on the Master System and I thought it was published by Virgin. We were certainly paid, but I can't remember getting any royalties."

The game didn't sit on the shelf for long though, as TecToy came in and snapped up the rights to release the game... in Brazil! For Europeans, the Master System version of Fire and Ice never saw the light of day. But SMS Power (**www.smspower.org**) have archived TecToy's release so people could see what it was like. Using the same engine as Superman, this was a flawless conversion by Darran Eteo (code), and John Lilley (graphics). The proposed Game Gear version would have been roughly the same.

The Mega Drive version wasn't so lucky, with Renegade failing to find a backer. Although 100% complete, the game was dropped. Making matters worse was the fact that the Mega Drive version (coded by Andrew Braybrook) boasted vast improvements including better scrolling, layered backdrops and other visual effects. Mega Drive users certainly lost out, as did Graftgold, which was denied a stab at the lucrative 16-bit console market. The game's cancellation ultimately contributed to Andrew leaving the games industry for good. Hopefully one day the Mega Drive version will surface and Andrew's hard work can finally be enjoyed and appreciated.



To see Cool Coyote in action on the Master System, visit the GTW section on this month's cover CD

STRANGE GAMES

In the 80s, if you considered yourself a digital artist but only had an 8-bit game console at your disposal, you were fated to starve. Console graphics applications never became the new sliced bread, despite the efforts of the limited but fun Mario Paint. They seem like a feeble idea, but throughout the history of videogames, few stones have been left unturned. Per Arne Sandvik looks at what lies beneath…

Mario Paint had a few advantages over the drawing games released on the 8-bit consoles. Firstly, it was released on the Super Nintendo so could take advantage of a richer palette and better hardware. It also had a mouse. You may not know this, but painting a beautiful still life with the blocky NES controller feels very similar to trying to sharpen a banana using an old banana.

Ready steady scrawl!

Let's have a look at exhibit A: Pictionary – The Game of Video Quick Draw. By combining Pictionary and the NES, Software Creations added all the fun of finger-painting with boxing gloves on to all the fun of being frustrated and bored. And still it managed to make room for some gameplay straight out of a Game & Watch.

It has to be said that converting a board game to the NES is in no way a simple task. A board game is in itself relatively limited. You can climb up those ladders and slide down those snakes as much as you want, but there's no way you can jump over barrels and knock monkeys down at the same time. The parts don't move unless you move them yourself. What you can do is add elements from outside the board itself, like the original Pictionary did when it introduced a pad of paper and a pencil. And the NES had its own limitations, among them the lack of actually being able to feel a die in your hand or draw a picture for other people to guess. The problem is, when you combine the two, you're not left with the best of both worlds – you're stuck with all the drawbacks.

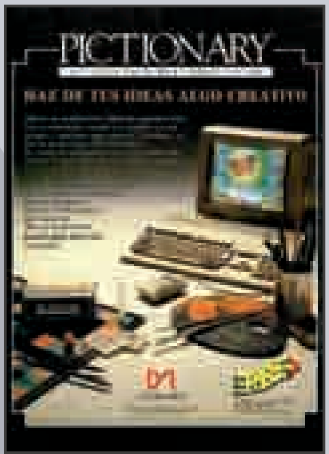
Let's have a look at the first of the two different game modes NES Pictionary has to offer. In regular mode, you don't actually draw anything. You roll the die, move along the board, then play one of four mini-games. These are all so simplistic they could have been ported from a digital wristwatch, and in fact two of them are. For each box you move across a room or ball you collect, a square disappears from a side panel, revealing a line-drawing on a black canvas. When the time runs out, you guess what the picture is. Some are simple, like 'pyramid' or 'moon', but most are cluttered angular messes, and you'll find yourself wasting half the available time squinting and tilting your head until you realise the answer is 'bullseye', not 'Western Scandinavia' after all.

But the other mode is the





Pictionary was part of the NES 'Power Play' series, which sounded a damn sight more interesting that it actually was



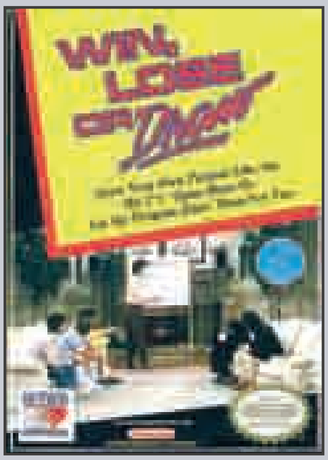
Domark later released the game for home computers, though why anyone would want to use it to show off their shiny new Amiga is another matter

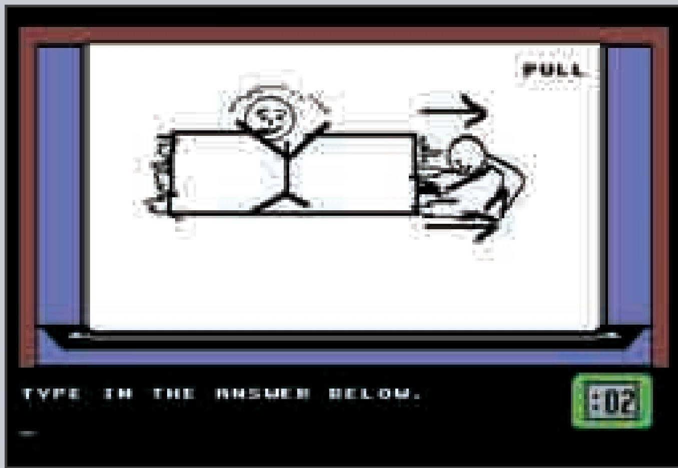
really tricky one. Here, you and your friends move from square to square on the board and are presented with a black screen upon impact. This is the canvas you are to express yourself through. You receive no instructions as to what to draw, so you'd better prepare a hatful of alternatives before you start. You control the cursor as you would a car in a top-down view racing game, directing it with the left and right buttons. This is a rubbish way to draw anything, and, to make matters worse, your 'race car' has a choke problem and will jump randomly forward at the slightest touch of the A button. Unless your crinkled little paper slip said 'horizon at open sea (slightly out of level)', you're in for a world of trouble.

Neo-cubism

Win, Lose or Draw from Hi Tech Expressions is somewhat easier to control. That is, if you're some sort of Etch-A-Sketch wizard. Etch-A-Sketch, the Rubik's Cube of drawing equipment, never left much room for gracefully applying delicate lines. Unless you were shooting for an abstract masterpiece, you'd be best off drawing a box from a head-on perspective. The same cumbersomeness can be found in Win, Lose or Draw. Sure, drawing a lorry is somewhat feasible, but once obstacles like 'rock and roll' or 'shoofly pie' rear their crudely drawn heads, you may as well tape a piece of paper to your telly and take it from there.

This game was obviously created by a committee. The television show and board game on which it is based were both successes in the US, and it was only a matter of time before businessmen found themselves







Win, Lose or Draw on the Commodore 64 – play-along-at-home fun



With over 500 picture puzzles, the fun could last all of an hour!

drawn to the brave new world of videogames like drunks to a rotating slab of kebab meat. As is the case with every other game created by a committee, Win, Lose or Draw is absolutely riddled with kickin' rad-to-the-max slang. But just as a tiger can't change its stripes, calculator-brained executives can't form a hip expression to save their lives. Win, Lose or Draw is no exception to this rule, and one of the entertaining aspects of the game is playing to find out if you can find a exclamation older than 'swell' or one more absurd than 'hairy'.

The game was also ambitiously adapted for the Commodore 64. Presented with even steeper technical limitations, the creators opted to throw out the drawing aspect altogether and focus on the guessing. While the C64 couldn't offer much in the way of detail, the stick figures are usually comprehensible enough. But a bizarre problem arises when some of the answers are too long to be entered or even displayed, so a number of challenges are in fact unsolvable.

Neither version of the game is very enjoyable. Like Pictionary, Win, Lose or Draw handles with all the grace of a circus strongman suffering from an inner-ear infection, and it's too obvious that board games, especially ones involving drawing, have no home in a console. If you want to play a board game, buy the real version which allows you to have some fun without working your fingers to the marrow trying to draw a convincing top hat. Those things even let you play with more than one other person at a time.

This could be changing, though. With its pressure-sensitive screen and wireless network opportunities, the Nintendo DS may become a great way to play Pictionary with several others. Of course, this sort of get-together would result in about £300 of hardware expenses. Perhaps the wheel has already been perfected and videogame systems should stick to what they do best: blue hedgehogs running at breakneck speeds and robotic gladiators.

1UP HIGH SCORE

THE STORIES BEHIND THE SCORES



Topping the Spy Hunter high-score league is Paul Dean with a score just shy of 10 million. With the help of a well-placed oil slick, Paul Drury stops him in his tracks and asks him a few questions...

"There's nothing more cool than James Bond," enthuses Paul Dean, explaining his devotion to Spy Hunter. "Just to step into his shoes, even for a few minutes..."

Paul spent more than a few minutes in 007's shoes – 11 and a half hours to be precise, on 28 June 1985, amassing a cool 9,512,590 points and setting a world record that still stands today. And there's something rather Bond-like about the story behind that score... daring deeds, intrigue, villains, the hero fighting against the odds and triumphing in the end, even if he doesn't quite get the girl.

But, just as James had to attend spy school, Paul put in many hours of concentrated effort before he became a spymaster. A regular player since the game's launch in 1983, his practice regime became two hours a day, Monday to Friday, in the months leading up to the Guinness Tournament in 1985 where he'd achieve his record score. He developed a range of tactics – a 'see-saw' pattern of slowing down and speeding up to avoid the double-barrelled gun of the Lethal Enforcer, one-shot kills of enemy cars to minimise debris on the road, a non-aggression policy on curvy or icy roads, and judicious use of oil on water to take out the malicious Dr Torpedo during the boat sections, to name a few – until the game became as servile as Miss Moneypenny.

"It's a game of risk management. You have to be careful with only six lives in total, but it does plateau around 800,000 and once I'd perfected the strategies, there was nothing it could throw at me I couldn't handle."

So Paul sat down at the cabinet in the Huish Family Fun arcade in Upland, California on that day in June, and – with his friend and mentor Phil Britt, who had recently been crowned Player of the Year, at his side spurring him on – Paul turned in a marathon performance on a game that it simply shouldn't be possible to marathon. The camaraderie is touching, as Paul describes how Phil used a few white lies to get the best out of his protégé.

"He kept telling me that Jeff Peters, the Twin Galaxies referee for our area, was on the phone, saying there was some guy in Alaska who was only a few million behind me. It was a clever trick and really pushed me on."

I can't resist asking the inevitable bladder question. How exactly could he make a bathroom pit stop without a cache of extra cars to sacrifice? "You can't. You have to suffer," he winces, as if still recalling the gruelling ordeal of all those hours without a toilet break and just one Coke and a hotdog to see him through. "You just have to put it out of your mind."

Exhausted, but ecstatic at getting his name in the Guinness Book of Records, Paul walked away from the machine for good. "I retired after that game. It had been so long and very stressful. I said I'd come out of retirement if there was any competition, but there wasn't."

And there still isn't, two decades later. In fact, no one has even come within 10% of his score and cracked one million points.

End of the road?

Though his days playing games competitively had ceased, Paul remained involved with arcade gaming, working for a chain of pizza parlours called Little Caesars and installing Street Fighter cabinets in their 123 restaurants during the early nineties. He even managed to sneak his own beloved Spy Hunter machine into one pizza joint, but confesses that "no-one could really get the knack of it."

Paul continued to live in Riverside, California, in the home he grew up in, which he shared with his father, still intensely proud of his enduring record and occasionally checking the Internet for any challengers. Then unexpectedly in 2003, he came across a news story, declaring a new Spy Hunter World record, yet strangely omitting his own score. His sense of injustice grew when he found his score had been removed from the official Twin Galaxies scoreboard and replaced with the considerably lower 832,620 turned in by one Mark Little.



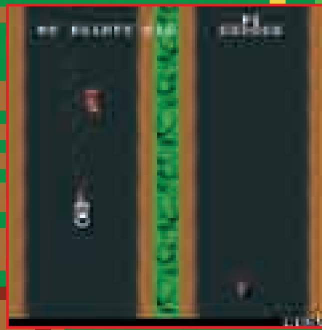
Paul Dean, the world's premier Spy Hunter

"I tried to find out why my score had been pulled, but Twin Galaxies is a big organisation and I'm just a little guy with no money. I wasn't getting any answers, so I had to set up a website to try to get my voice heard. Basically, Mark Little said my score was impossible and

SPY HUNTER









challenged me to repeat it, but I had a fall at work in 2001, which left me with nerve damage in my back. I can't sit for more than half an hour or walk far because of my injury."

Things quickly grew ugly. Paul had to contact people who'd witnessed his score nearly twenty years previously and could verify it, but still he failed to get recognition and thus was forced to threaten the involvement of the Attorney General on the grounds of disability discrimination.

"At that point, I had no choice but to make it a legal matter. It was unfortunate. I'm a nice guy and it was a terrible thing to threaten."

Thankfully, the powers that be at Twin Galaxies relented before medical certificates were required and accepted the testimonies of Jeff Peters and Phil Britt that Paul's 'impossible' score was indeed genuine. The whole affair is documented on his website **www.spyhunter007.com**, the one good thing to come out of all the controversy. He's once more in contact with fellow players from the old days and, with his score reinstated, can again call himself the rightful Spy Hunter World Champion.

One last question. Having spent so many hours playing Spy Hunter, I wonder whether the Peter Gunn theme tune that plays throughout the game is so lodged in his head that he's forever cursed with hearing it as the background music to his life?

"Actually, I have that tune on my site and play it back to myself at least once a week," Paul confesses. "It reminds me of that time in my life. Such a great time. You can't go back, but you can have your memories."



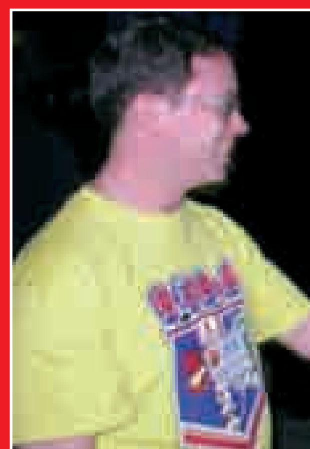
Game	Score	Player's Name	Home
Rally-X	51,460	Tad Perry	Seattle, Wash
Red Baron	214,230	David Palmer	Auburn, Calif
Return of The Jedi	1,938,010	Mike Sullivan	Riverside, Calif
Robotron	960,550	Robert Bonney	Kirkland, Wash
Satan's Hollow	12,816,000	Chris Emery	Winnipeg, Manitoba
Sinistar	292,225	Jeff Peters	Etiwanda, Calif
Space Invaders	29,090	Sonny Shum	Victoria, BC
Spy Hunter	9,512,590	Paul Dean	Riverside, Calif
Star Gate	194,200	Scott Heyano	Seattle, Wash
Star Rider	339,015	David Palmer	Auburn, Calif
Star Trek	1,723,175	Maurice Dociulle	Ft Lauderdale, Fla
Star Wars	15,250,793	David Palmer	Auburn, Calif
Super Basketball	3,394,850	Tim McGuire	Anchorage, Alaska
Super Pac-Man	855,940	Bill Deloca	Colonia, NJ
Super Punchout	182,980	Sean Jensen	Anchorage, Alaska
Tapper	3,000,000	Jack Gale	Miami, Fla
Tempest	822,852	Jeff Seymour	Sacramento, Calif
Time Pilot	8,197,100	Jeff Peters	Etiwanda, Calif
Time Pilot 84	342,900	David Presley	College Station, Tex
Track N Field	95,040	Kelly Kobashigawa	Los Angeles, Calif
Tron	1,895,463	David Palmer	Auburn, Calif
Turbo	29,092	Chris Emery	Winnipeg, Manitoba, C[illegible]
Turkey Shoot	74,650	Stefan Pare Delisle	Montreal, Quebec
Tutankham	205,780	Jorge Matsufuji	College Station, Tex
Vanguard	317,330	Thomas Chaka	Wharton, Tex
Wizard of Wor	80,300	Marc Longridge	Oshawa, Ontario
Excitebike	398,730	James Hilliard	Upland, Calif
Zaxxon	804,150	Dave Ander	Anchorage, Alaska
Zookeeper	20,063,920	Jack Gale	Miami, Fla
Cerberus	101,500	Robert Haukap	Seattle, Wash
Megazone	312,480	James Page	Seattle, Wash
Mayhem 2002	10,200	David Leiche	Honolulu, Hawaii

Paul's amazing Spy Hunter score graced the pages of the 1986 *Guinness Book of World Records*, along with a legion of other high-score heroes

›High-score update

The world of records never sleeps, so as this column is now six months old, we bring you news from the high-scoring front…

Mark Robichek's Frogger record, featured in *RG* issue 14, was finally beaten after standing for over 20 years. The new champ is Donald Hayes, who turned in 589,350 and can now add this amphibian scalp to the eight world records he already holds.



Donald Hayes is the new Frogger champion, having topped Mark Robichek's 23-year-old record

Not content with setting a new Galaxian high score last year, Gary Whelan (*RG* issue 13) has his sights firmly set on topping one million points, thus claiming a Twin Galaxies bounty of US$1,000. He's so far achieved 689,080 and with his performances now approaching the three-hour mark, he's even been forced to upgrade his vintage camcorder in preparation for recording the big one.

Meanwhile, Tony Temple (*RG* issue 15) comes ever closer to toppling the Missile Command tournament record. His current high score of over 1.4 million fell just a few hundred thousand short. "I was literally 10 minutes away from beating Roy Shildt's score," Tony explained, the pain still palpable. "But then the voices start in your head, saying 'nearly there, don't screw up' – I became tense and was firing off stray missiles from my hands were shaking so much."

Both Gary and Tony will endeavour to keep the British end up at the CGEUK in August, which this year welcomes Twin Galaxies founder Walter Day and Billy 'Perfect Pac-Man' Mitchell, along with numerous other high-scoring heroes including Perry Rodgers, featured last month. "I hope we can get loads of British classics players down to Croydon and send the Americans back across the Atlantic after a sound digital smacking," added Gary, with typical Mancunian diplomacy.

It's a unique opportunity to meet and greet the players and very probably see new world records set. Plus you can witness this hapless reporter conducting Garth Crooks-style post-game interviews, posing such philosophical masterpieces as, "So, why did you die?" See you all there, then.

Retro Scene

The latest news and reviews from the retro gaming community

CGEUK Update

The very latest show news

The upcoming Classic Gaming Expo UK is growing better and better with each passing day, it would seem. As if the plethora of events and attendees wasn't enough already, new announcements are providing even more reasons to scoot on down to the show on August 13th.

First up is the announcement that Stuck in D'80s will be in attendance, with Ben Daglish and Mark Knight (aka madfiddler) performing a live and unplugged acoustic set. Attendees to the Back in Time gigs will know that this is definitely not to be missed.

There will be even more record-breaking at the show with the addition of Nick Hutt, who unofficially broke the Space Harrier world record with a score of 35,000,000 on a single credit. He'll be joining other record breakers, and trying to officially beat Matthew Preece's record live at the show. Also making an appearance at the show is Doris Self, who previously held the title of the world's oldest gaming champion. 80-year-old Doris was pipped at the post back in 2003 by a 72-year-old gentleman who achieved the record score on Depthcharge. But Doris aims to regain her rightful place with her chosen title of Q*Bert at this year's show, under the watchful eye of Twin Galaxies referee Walter Day.

Classic Gaming Expo UK takes place on Saturday 13 August at Fairfield Halls, Croydon, South London. The show runs from 10am to 7pm. For the latest details and ticket information, visit **www.cgeuk.com**.



Ben Daglish will be playing an acoustic set

Great Scott!

Return to Adventureland

Retro gaming publisher Retro-Soft (**www.retro-soft.co.uk**) has struck gaming gold recently and signed a deal with graphic adventure guru Scott Adams. The deal (which excludes existing fans' sites) has granted Retro-Soft the exclusive licensing rights to the original Commodore 64 incarnations of many of Adams' creations. Titles including Pirate Adventure, Voodoo Castle, Ghost Town and Adventureland (the first commercial computer game, released on the Apple II in 1978) are available, and can be found at **www.download-trader.com**. With big-name signings like this, Retro-Soft are certainly becoming a publisher to keep an eye on…





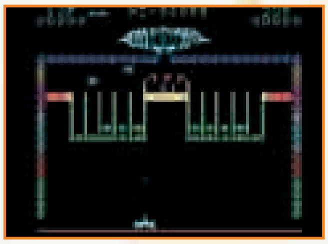
ColecoVision Invaded



Brand new homebrew

The classic alien-bashing arcade shooter Astro Invader (Stern, 1980) has been faithfully ported to the ColecoVision by homebrewer Scott Huggins. The port, which is reportedly a flawless conversion of the original game, packs in all the action seen in the classic arcade title. In the game you have to fight off wave after wave of invaders, seeing how long you can survive the onslaught. The aliens are stacked up, Tetris-style into columns, and when a column is full, the wave descends to attack. If you're lucky, you may also have the chance to destroy the mother ship.

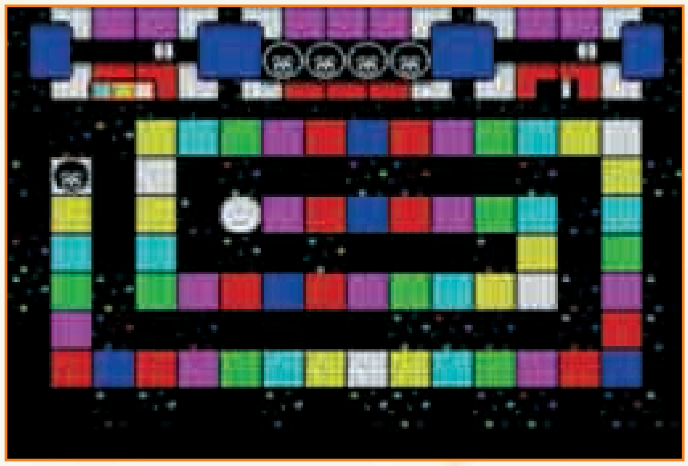
The finished game made its debut at the recent Oklahoma Video Game Expo, and you can order it online from AtariAge (**www.atariage.com**).



Stranded

Developer: www.cronosoft.co.uk **Format:** Spectrum 48K
Price: £2.99 (tape) **Players:** One





The games industry is currently suffering its usual summer drought, but Cronosoft refuses to let the sunshine stop it from becoming the UK's premier retro publisher. The first of several summer releases is Stranded for the Spectrum. Originally written back in 1989, author Bob Smith recently found the code gathering cobwebs in his attic. After knocking it into shape, it's now available for the bargain budget price of £2.99. Blimey – these days you can barely buy a pint for that!

The game is a puzzler in which you control a strange blobby character called Moosh. The aim is to guide Moosh to the exit, which sounds simple enough – except that each time you step onto a tile, it disappears into the cold vacuum of space below. As a result, you need to study each level before play in order to work out the best route. To complicate matters, later levels feature conveyor belts and moving tiles, making your job that much more difficult.

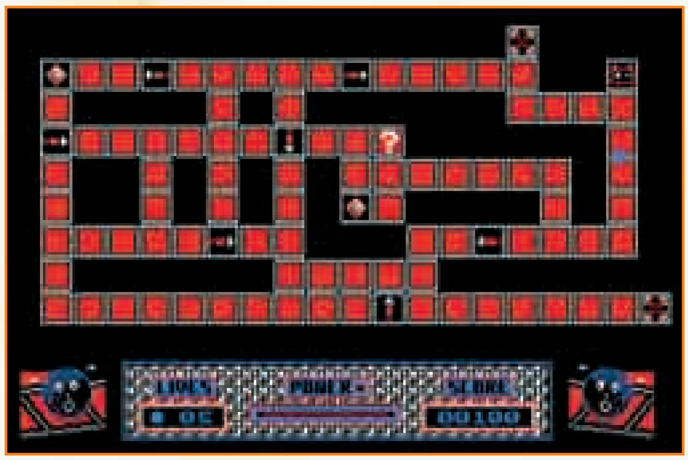
Stranded features 32 static levels, and a password system that allows you to return to the last level you reached. Graphics are basic, as you'd expect, but very colourful. Having endured so many monochromatic titles towards the end of the Spectrum's commercial life, it's great that the Speccy scene programmers are flooding their games with colour. Sadly there's no music, only the odd spot effect here and there.

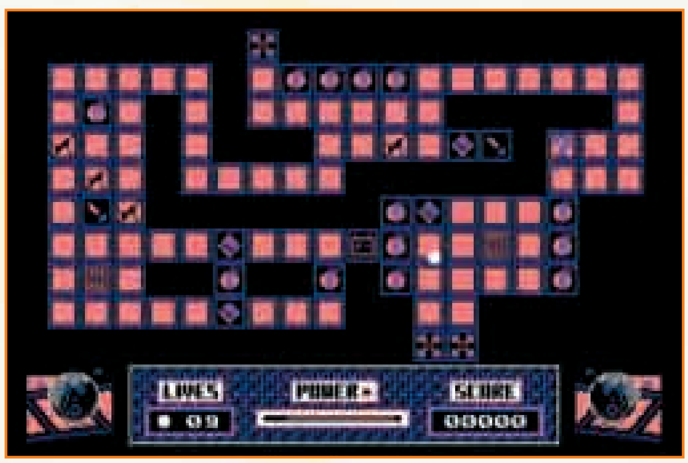
Stranded is another solid release from Cronosoft. It doesn't push the Spectrum in any way, but will keep puzzle fans thoroughly entertained.

Rating:

Iron Sphere

Developer: Cronosoft **Format:** Amstrad CPC
Price: £1.99 (tape) **Players:** One





Iron Sphere from Cronosoft is a similar-looking game to Stranded, and brings some interesting puzzle action to the Amstrad. Taking control of the eponymous Iron Sphere, your goal is to traverse a seemingly never-ending maze while avoiding traps and picking up diamonds. Don't let the simple premise put you off, as this is deviously challenging stuff.

Using the direction keys (or joystick), you have to move the ball around the various screens without falling off the track. But when your ball is moving, it won't stop until you change direction (or hit pause), so you'll need to think quickly. You'll also have to avoid bombs, cracks and arrows that push you in different directions. To make matters worse your power runs down constantly, so you'll also need to find batteries to top up your reserves.

Iron Sphere is an intriguing game, and despite its apparent simplicity, is an addictive and compelling title with definite 'one more go' appeal. It's certainly no looker, but it has the all-important gameplay and clever level design. The pause button is a problem, though, and after pausing the game your ball also stops, negating the challenge of the constant motion. It's also a little tricky when you teleport or change screens, as often you just don't have enough time to see where you're ball appears and lose a life.

Overall, though, Iron Sphere is a great little game, and for the bargain sum of £1.99 you'll acquire an addictive new puzzler for your trusty CPC.

Rating:

Back in *Retro Gamer* issue 15, Paul Drury mentioned the work of Faye Lampshire in his Screenplay report, with the promise of more details in a future issue. Not one to renege on his word, Paul chats to Faye about the finer points of cross-stitch, retro-style

<A Stitch in Time

So what exactly motivates someone to spend 70 hours a week, needle and thread in hand, reproducing videogame images in intricate cross-stitch?

"I'd had a rough couple of years," explains Faye. "In 2000, I had problems with the boiler and the roof in the house I was living in. Then in 2001, there was lots of hassle at work. And in 2002, I changed gender. My mother started me off doing cross-stitch as a form of occupational therapy."

As is typical of the ancient craft of stitching, Faye's first efforts featured the traditional birds and flowers, but soon, as a devotee of anime and videogames, she was looking for new source material. "I just wanted to do something different. I had all these game images and wondered if there was a piece of software that would let me take them and stitch them."

Thankfully, Faye found such a package in the handy Jane Greenoff's Cross-stitch Designer, which could produce a pattern to work to, with lines between each pixel. There was still the task of deciding on colours and appropriate threads, not to mention the colossal effort of stitching the picture. Faye educates us on the awkwardness of petit-point stitching (which she uses for greater detail), misbehaving metallic threads, the confusing number reference system for silks, and the trickiness of getting a good edge. It occasionally feels like she's talking a foreign language and the whole process sounds incredibly complex. Is this something anyone can do?

"Oh yes," she assures us. "All you really need is reasonably good eyesight, the ability to count and a large amount of patience."



Cross-stitch artist Faye Hampshire, busy at work on her latest piece. Can you tell what it is yet?

Indeed. With each picture taking several hundred hours to complete (Faye can do 100 stitches an hour, and with 256 stitches per square inch, you do the maths…), serious dedication is required. The huge amount of time and effort involved also explains why the pictures aren't for sale and she doesn't take on commissions. "Unless you're talking well into three figures," she adds, with a wry smile.

Screen test

The fruits of Faye's labour were first shown to the public at a Screenplay:SD event last summer, held at the Broadway cinema in Nottingham, and such was the interest and admiration shown for these unique "cover versions", as she describes them, she put on a full exhibition as part of the main Screenplay Festival held earlier this year. Entitled Capcom Cross-stitch, the show featured a collection of characters from the Japanese developer's illustrious beat-em-up back catalogue, including Chun-Li, Cammy and Sakura, some in their cute 'super deformed' style.

"I've always been a fan of beat-em-ups, ever since… ooh, Way of the Exploding Fist, right up to the memory tests they've become now. I mean, come on, 70 moves? To my mind, the classic age is that of the 2D games of Capcom and SNK – Street Fighter, Fatal Fury/King of Fighters, Vampire Hunter/Vampire Saviour/Nightwarriors, Samurai Spirits… ah, such great days…"

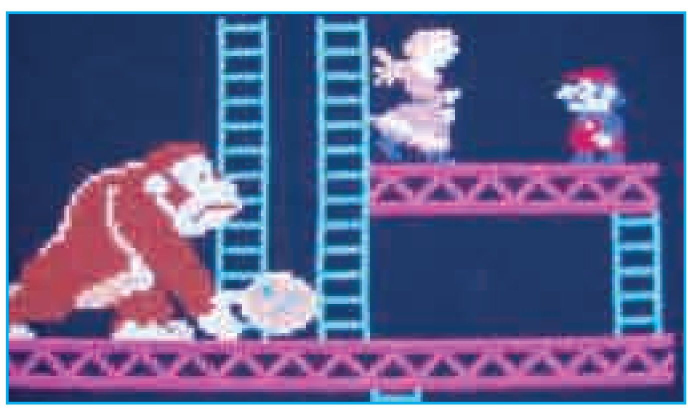
After much positive feedback following the Broadway exhibition, Faye is currently working hard preparing for her next show, which this time will focus on SNK fighters taken from the Art of Fighting, Fatal Fury and Samurai Spirits games. We wonder whether she has ever considered 'going retro'?

"I've done some small images from Galaxian and Donkey Kong. If I had the time and material, I'd really like to do the map of Jet Set Willy, or perhaps Son of Blagger."

As we leave Faye conscientiously stitching away on an image of King from Art of Fighting, we enquire if she does indeed find such a labour intensive activity therapeutic.

"Most of the time I do, but sometimes I don't and what makes those moments worthwhile is the finished product. There are times when you sit down and think, 'This isn't joining up. Why isn't it joining up? Where did I go wrong? Do I need to fix it? Can I leave it…?'"

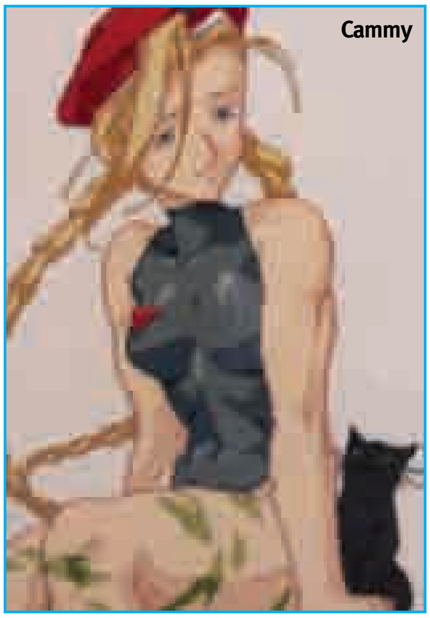
Faye pauses, before summoning up a fitting analogy. "You know that mini-game on Wario Ware with the totem pole and you have to chop the middle bit out? You fall into a rhythm – dum, dum, dum. When it's going well, that's what stitching can be like – you look up and think, 'Is that the time?' What's your high score on that, by the way?"



Besides beat-em-ups, Faye has a strong interest in retro gaming, as this recent piece shows

›The Capcom Cross-stitch Gallery


Sakura


Cammy


Chun-Li and Cammy


Chun-Li


Ibuki


Morrigan

Capcom Cross-stitch photography courtesy of Jon Jordan

The Retro Forum

Let us know what you think about *Retro Gamer*, or anything else retro...



Commodore for President!

As the kind of guy who bows at the altar of most things Commodore, I think the time is ripe for a PET article. This machine could do much more than accounts, as a previous *RG* article touched on with its mention of Space Invaders and 3D Tunnel Vision. Go to **www.commodore.ca/download/download.htm** to look at the PET arcade and strategy games on offer.

Porting the games to an original PET (or using the WinVice emulator) shows just how ace the PETs were. More so when you consider they also had line outputs, the first PCs to do so. When using my PET I could see very definite glimmers of the VIC-20s, C16s and C64s to come.

Another thing – IBM nothing, Commodore was the first to release cheap, desirable, fashionable, networkable, personal machines which you could save your work on at the office then take the data home to play with on your home Commodore! And don't give me that Apple rubbish either! Commodore was the best and there's no denying it!

Michael Braisher, via email

RG: Whoa there Michael, you're preaching to the choir! We're also very fond of Commodore and its systems, and we agree that the Commodore PET was a very impressive machine. It's true it was capable of much more than people give it credit for, and there were enough models for a full-blown feature – so we'll see. Now take some deep breaths...



Name that game

There's a mystery arcade game I'm searching for – it could be on MAME, but I haven't seen it. I played it around 1986 or 1987, give or take a little. It opened up with martial arts-themed characters – I believe you had to rescue a Princess – and was side-scrolling, a bit like Jackie Chan's Action Kung Fu. I remember at the very beginning there were green raised platforms of land, like rice steppes, and Bengal tigers leapt at your slightly big-headed kung-fu hero. I believe it had a Japanese name

http://from.the.retro.forums

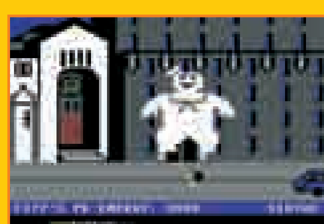
This month we wanted to know what your most memorable and triumphant boss battles were. Which bosses gave you sleepless nights? And which battles have lodged in your mind as the greatest-ever gaming clashes? Here's what you had to say...

ID: >Fuz<

It has to be Fernandez from Waku Waku 7. When he cracks out of his stone prison and starts to grow hundreds of feet tall, you ask yourself: 'What the hell I am facing here?!' And as he starts to form, you see his happy smiling face and think: 'Aw, he's cute!' But then he attacks you with that evil giant tongue, eating you up and crapping you out. And his evil laugh when he beats you... it sends shivers down my spine every time.

ID: >alexhighnumber<

Mine has to be the Marshmallow Man in Ghostbusters on the C64! Yes, I know it's so easy, but the pressure at the time made defeating him seem like an unachievable goal. I played and played that game – and finally, on my black and white portable, I made the breakthrough: one Ghostbuster under his legs! Well, I knew it could be done then. I played again, taking the hearse car with containment trap and bait as usual – and at the end, with heart pumping, sent one guy through. For a second I lost it and he was trampled on. So, with one chance left, I took a deep breath and waited... waited... waited... then GO GO GO, and he was through! I'd done it – up the skyscraper,



crossed the steams on Zool, heard him scream and it was all over.

My first-ever completed game, 11 years old. I had a story to tell the next day back in the playground of my primary school.

ID: >spikey_d<

I'd have to vote for the final boss fights in Sonic 3 and Knuckles. First there was destroying the six huge fingers that could crush you, then avoiding the Chaos Flash Beam

on the marquee, and it was at a movie theatre here in the US. Not much to go on but vague information. If you can locate this game, it would be greatly appreciated – so much so that I'd be indentured to *Retro Gamer* for seven years.
James, via email

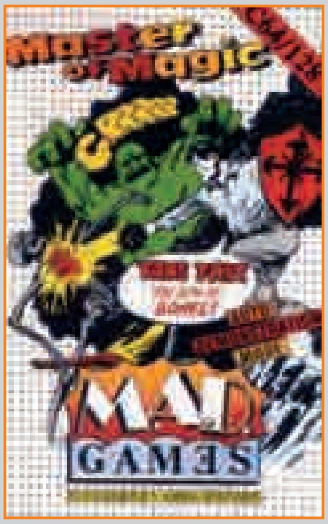
RG: We had a good look for this title, and to be honest, we couldn't put a finger on it. We suspected at first it might have been Tiger Road, but after playing it we were left stumped. Jackie Chan's Action Kung Fu does have tigers in, though, as well as big-headed heroes…

We'll leave this open to anyone out there who can put a name to the game. If you know, please drop us a letter or email at the usual address.

Wizards and V8s

The arrival of *Retro Gamer* on my doorstep is turning out to be a highlight of every month. It's a brilliant magazine, absolutely brilliant. I'm writing with a couple of suggestions of things I'd like to see in future issues.

Firstly, I started at issue eight so tell me if you've done this already – but were you planning to run a feature on Sirtech's Wizardry series? The reason I ask is because I'm currently working my way through the last game of



the series – Wizardry 8 – and according to the Law of Diminishing Returns it should be at least eight times worse than the original. It's not. It's one of the best RPGs I've ever played. I think Sirtech deserve some recognition in your pages for creating a franchise that, against all the odds, both started and ended strongly (despite the ups and downs in the middle). I can't think of another series that has lasted about 20 years and not become something of an embarrassment (Ultima, I'm looking at you…).

Secondly, your feature on the Commodore 128 started me thinking. Not about Commodore or anything like that – but about computer game box art. It was the picture of the cover of The Last V8 that did it. I really liked the pop art-style covers that Mastertronic ran for a few of their MAD games – I thought they were very innovative. I wondered if you planned to ever do a feature on interesting and unusual box art from the 8-bit era? Maybe there's not enough material for a whole article, but surely there must be enough for something?

On a related note, one of my favourites from the aforementioned MAD games was Master of Magic (like The Last V8, it had superb music but was a much better game). I think I remember the inlay promising that this was the first in a series of RPG games in this style. I don't remember seeing any others, and wonder if any other games in this series saw the light of day.
J, via email

RG: The Wizardry series is a strange one, really. Although it's a series with its own army of fans, it still remains unknown by the majority of gamers. For this reason alone it may be worth covering at some point in the future, if only to raise people's awareness.

MAD's cover art was indeed striking – Spellbound was a particulate favourite… "If I had a hammer!" There's definitely a feature there, and it would make an interesting change to articles on Japanese box art. As for Master of Magic, we're fairly certain the series was cut shortly after its debut outing.

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Treasure in the attic

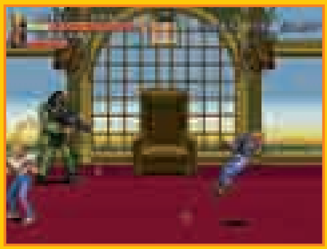
Hi there. I thought it was about time I sent a letter, since I've been reading *Retro Gamer* since issue one, and I have to say that it's a great magazine that keeps improving with every issue. Anyway, enough of that – I just thought I'd send you some photographs of some retro gear I found while recently clearing out my loft. The items are a Sam Coupé, an Opus Discovery One Disc Drive, A Sega Light Phaser for the Master System, and a Centronics Wafadrive.

My brothers and I had to

in space – I loved that too. But the stand-out part of the fight was the final chase to release the Master Emerald from the clutches of Dr. Eggman/Robotnik. And one of the best boss-fight moments of all time for me has to be turning into Super/Hyper Sonic for the final showdown (if you had all seven Chaos Emeralds, of course). Seeing Super Sonic properly for the first time in a boss fight is so memorable.

ID: >Dynamite Dan<

Streets of Rage 2 – it wasn't so much the end boss that used to wind me up, but his seemingly endless supply of minions that kept springing from the sides of the screen. Beating that game on hard sure gave me bragging rights amongst my friends.

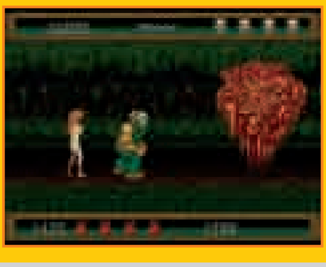


ID: >Readboy<

My favourite boss battle is with Grunty at the end of Banjo-Kazooie on the N64. I think this is probably due to fact I'd given up on beating it. But after a month or two, it lured me back and success was mine. Plus, the end-of-game sequence is hysterical, with our heroes basking on a beach surrounded by beach babes and supping back a few cocktails, whilst Grunty lies trapped beneath a boulder. Which begs one question – what's happened to Rare since?

ID: >relik<

The end boss of Splatterhouse 2! Man, that was a hard battle. A clump of rotting flesh that shot wave after wave of demon/wolf heads, forcing you to act out some crazy punch, jump, duck, and slide manoeuvres. If you managed to make it past that, you were then greeted by another demon head with bat wings flying around the screen at hyperspeed



with what seemed like no pattern at all! Phew…

ID: >Aliens Are Crunchy<

Ruby Weapon in Final Fantasy VII. Let's face it – it wasn't just the fight itself that was a total beast. Getting the right gear for it was a long slog too. I spent way too long breeding and racing chocobos to gain access to the Knights of the Round summon. Then there was all the hard work spent levelling up and splitting materia so that everybody was tooled up with Mime, etc. It took me ages to finally kill it. I had to take long breaks from the game then come back to it – constant failure was doing my head in. For a while I just told myself to let it go but that damn boss niggled away at me, mocking me, because while



share the computers in our house. A ZX81 was the first, followed by a Spectrum 48K then a Spectrum +. After that, my brothers lost interest in computers and started playing with games consoles like the Atari 2600 and later the Sega Master System (hence the Light Phaser). Now, of course, they're all into the Xbox and PS2.

I never lost interest in computers, and in 1991 I was given a Sam Coupé for my birthday by my Gran and my Uncle. I thought it was an excellent machine – no way was it just a super Spectrum. I must have used it for about five or six years. I also still have the MGT Lifetime Drive which I used as a second drive for the Sam, and an original Sam Mouse Interface, but not the original mouse.

The Sam and the Sega Light Phaser I expect still work, but as they haven't been turned on for a long time I don't think I'd want to try. Anyway, it's been a pleasure talking to you.

Stuart Ashcroft, via email

RG: Some nice finds there, Stuart. Isn't it great when you *finally* get around to that tedious task of cleaning out the attic, only to find you have some golden oldies hidden up in the rafters? It's amazing how many people write in to tell us of these excellent discoveries, which begs the question… just how much retro gold is hidden up in people's attics? If you discover a long-lost retro stash lying around in your loft, get in touch.

RG redeux?

Love the magazine – I devour every page. I live in Dallas and we receive our copies a few months late. I especially enjoyed the recent Retro Treasure and Retro Passion features, and would like to see more articles like these as often as possible. I'm a 40-year-old father of two, swamped in diapers with a stay-at-home wife. I don't have the chance to play games these days, but I plan to catch up… eventually. But 'plugging in' within the pages of *Retro Gamer*, and a few other lesser American magazines each month, gives me a similar satisfaction.

I have some questions:

1) I've been able to obtain every issue except number one. Is there any way to obtain a low-res scan or photocopy of this issue? Better yet, any plans to reprint issue one?

2) How many times are you asked the above question?

3) Have you have read/covered the novel *Lucky Wander Boy* by DB Weiss? A great read for any retro fan.

4) Why don't you just call it soccer and make it easier on us Yanks?

Robert Holdridge, via email

Thanks for the letter, Robert. To answer your questions in turn: Sadly, there are no plans to release or reprint issue one, so besides eBay, there's no way of obtaining of an issue at the moment. And yes, if we only had a pound for every time we were asked that… As for *Lucky Wander Boy*, we'll have to dig that one out. The excerpt on the book's site (www.luckywanderboy.com) is certainly worth a read.

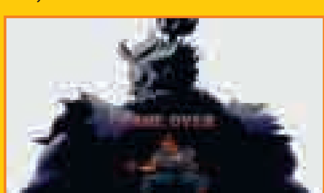
As for football, the clue's in the name, really. You play it with your feet, and you use a ball. Football. Besides, we were there first ;)



it remained unbeaten I knew I hadn't really completed the game. I was just conning myself in to believing I had. I confess: in the end I used a guide. It was in the shop, I saw it and was weak. I sneaked it home wrapped in a brown paper bag and never told my mates. It feels good to get it off my chest at last.

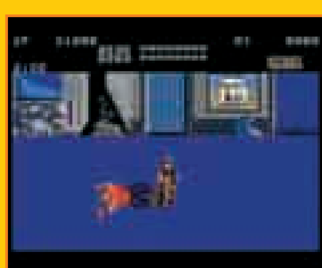
ID: >The jungle king<

Akuma – after many months of trying to complete Super Street Fighter II without losing a round only to find I had to face a double air-fireball throwing, teleporting, red-headed demon who was so hard he killed Ryu's master. Not good at all. It took me another age before I finally beat him. He the BOSS!



ID: >Browncat<

Big Bertha from the third level of Renegade. To this day I can't beat her and this has left me with a breast fixation and emotional scars. I don't care any more!

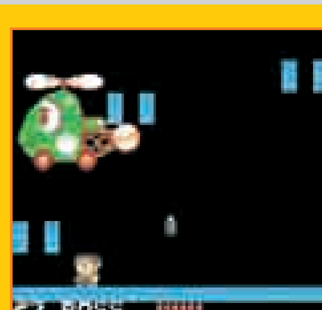


ID: >dirt<

It has to be Death Adder of Golden Axe fame. He terrorised a whole country and its inhabitants, while surrounding himself with the unkillable skeletons from Jason and the Argonauts. The satisfaction gained from battling through the whole game, challenging him to a duel to the death in his own castle, then winning back the Golden Axe – it really does take some beating. Years later, it's as much fun as ever. A true classic.

ID: >RetroIsland<

Rainbow Islands had my favourite bosses at the end of each level – I especially hated the cute helicopter on the toy level which I'm sure everyone found really



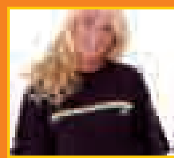
easy to beat but I used to struggle away for ages trying to move out the way of it!

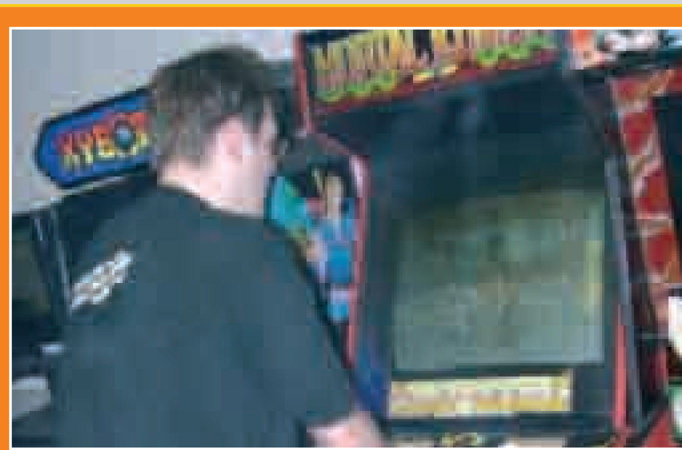
ID: >Mr Pointless<

A bit of a weird one, but my vote goes to the Supervisor from Rise of the Robots, as rubbish as the game was. The opening video didn't show her to be much of a challenge, but from the word go she proved herself to be cheaper than a 10-pence

Star Letter

Want to grab yourself a quality piece of retro-gaming merchandise? Each month we'll select our favourite letter – one that makes us smile or think – and the winner can select one of our retro-themed T-shirts for free...





Banned aid

I've just finished reading your latest issue, which is as excellent as ever. I'm always somewhat behind the times as it takes weeks for the magazine to arrive here in Germany, but I wanted to let you know how delighted I was to read a new instalment of the Arcade Hunt series. I can assure you that all your German readers are green with envy given your recent discoveries, as the story of the German arcade is a very sad one indeed.

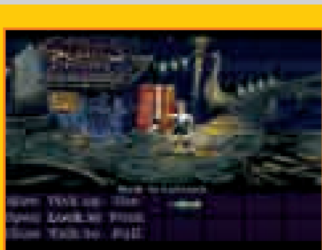
While we enjoyed playing Galaxian and Scramble just like other kids around the world in the early 1980s, the exciting new world of arcade videogames was lost forever in 1985 when a new Law for the Protection of Minors in Public was introduced. This law effectively relegated videogame machines to the confines of adults-only arcades, where they suffered a short and lacklustre life between slot machines and sleazy entertainment before disappearing almost completely. Some machines found temporary shelter in bars or restaurants, but by the early 1990s the sight of an arcade machine had become a rarity. It's no surprise, then, that without a viable arcade culture, videogaming never really went mainstream in Germany (the thriving home computer scene notwithstanding).

To keep the history of videogames from being forgotten, a group of enthusiasts created Retrogames e.V. in 2002, a non-profit organization dedicated to the preservation and promotion of videogame culture in Germany. In our hands-on museum located in Karlsruhe we've recreated an arcade featuring 50+ classic arcade machines and a number of pinball machines – all fully operational, of course, and set to free play! Machines include Frogger, Pac-Man, Asteroids, Gun Fight, Joust, Missile Command, OutRunners, Space Harrier, and many more. There are other machines, such as the East German Polyplay, waiting in storage as we've run out of space to display them all. I'd like to invite all your readers to stop by – admittance is free, but small donations are most welcome. Those unable to travel to Karlsruhe may have a look at our webpages at **http://retrogames.info** (sorry, German language only).

Even though there are no arcades left in Germany to track down, almost-forgotten storehouses filled with abandoned arcade machines still do exist. For us, it's a race against time to save and restore as many of these classics as we can before the owners decide to clear out their storage, irretrievably destroying little pieces of videogame history that we all love so much.

Ralph, via email

RG: We're well aware of the various bans imposed on contemporary games by the German government, and the almost zero tolerance when it comes to violence in titles, but we had no idea that this censorship has been going on for so long, affecting even the most innocuous releases of the past. We like the sound of your project, Ralph, and we'd urge any European retro gaming fans to drop by as a show of support.



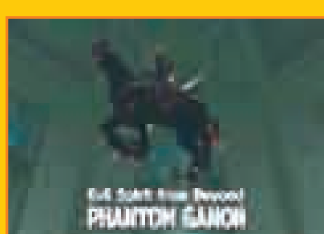
mix, pulling off attacks so quickly they were near-impossible to avoid. It was a relief when I saw the ending video showing her shattering into tiny little bits.

ID: >HalcyonDaze<

The greatest boss has to be the evil ghost pirate Le Chuck from the legendary Monkey Island games. I'd never been a huge fan of point-and-click adventure games, but the genius of Monkey Island drew me in. I loved the ending of the first game where you had to race to the church to stop Le Chuck from marrying Elaine. The ending to the sequel was equally good, if a little strange, as you find out that the demonic Le Chuck is actually your brother!

ID: >Lorfarius<

My favourite boss battle was from Zelda: Ocarina of Time. You're in the haunted mansion level, walking into a quiet room adorned with paintings. Then,



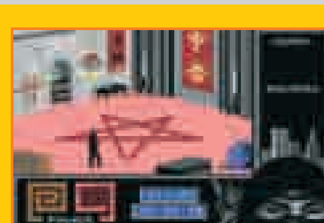
without warning, Ganon on horseback leaps from a painting to attack, followed by a mad scramble with bow and arrow to take him down. Pure genius.

ID: >JimboW<

I'd spent a happy day stealing booze from tramps and poisoning dogs in The Last Ninja 2 on my C64 and was finally approaching the final battle with Kunitoki.

Imagine my surprise when I repeatedly hit him in the face and he just kept getting up! What did you have to do to kill him?! I became really frustrated playing that battle over and over, unable to put him down for good. And for some bizarre reason I found I could light the candles in the pentagram. What good was that?

It reduced me to tears. All right, so there was no ability to save the game and you had to play through in one sitting, restarting from the level you died. I still don't think that justifies breaking down and sobbing like a girl, which is what I did – much to the bemusement of my parents.



Finally I phoned a friend who I know had completed the game and he bailed me out, telling me what to do with the candles and the orb. The joy! I don't think I've ever been so happy and relieved as when I finally put that puppy to bed.

eMag

RETRO AUCTION WATCH

It's Vectrex month in Auction Watch, as we look at a veritable feast of vector graphics, remarkable headgear and extortionately priced games. Richard Burton shows you how to empty your bank account in five easy steps...

The MB Vectrex is one of those quirky consoles that everyone liked the look of but not many got around to purchasing. It was hugely underrated in the UK and these days it's fast becoming one of the most sought after retro gaming consoles. Interest in Vectrex items is on the rise, and so are the prices.

The machine itself could set you back anywhere between £50 to £100, depending on its condition. But due to poor sales, lack of availability and the fact that they only had relatively short sales periods, some of the the rarer and more exotic games and add-ons have amassed bumper prices.

One piece that's high on the 'would love to have' list of every Vectrex collector is the extremely elusive and very exclusive 3D Imager, MB's attempt at recreating a 3D gaming environment. Released only in the USA and even then in small numbers, this is the one item that is sure to cause sweaty palpitations and a flurry of bidding whenever it's spotted.

The 3D Imager was a rather impressive-looking piece of headgear that simulated colour 3D graphics in games by means of a spinning coloured wheel that inserted into the goggles. Each 3D game came with its own interchangeable wheel, and once the game was up and running each eye was sent a different image resulting in the 3D effect. The goggles matched the scanning speed of the Vector monitor and tricked the eyes into 'perfect' 3D, even creating colours on a black and white monitor with the aid of the colourised wheel. The only drawback was that there were only three games officially released for the device. Luckily for 3D Imager owners, one of these games came complete with the package, Mine Storm 3D.

So how much will these rare goggles set you back should you be gagging for a pair? Well, when the dust had finally settled after two bidders engaged in a UK and US bidding war, the UK eBayer reigned triumphant with a final bid of just over £1,092.

OK, so you've donned your goggles, now you need 3D games. Luckily, the same seller had the







remaining two 3D game releases up for grabs – Crazy Coaster 3D, an interactive roller coaster simulation, and Narrow Escape 3D, a fast-paced shoot-em-up played out in passages and tunnels.

Our considerably well-off Brit managed to land Crazy Coaster 3D with a sturdy bid of £547, but just missed out on Narrow Escape 3D with his American nemesis winning out with a bid of £561.

So that's one pair of goggles and two 3D games for £2,200. What next? How about every officially released Vectrex game ever made – all 27 of them – including the three 3D games all on one lovely compact cartridge? This officially licensed product doesn't have the rarity appeal of the individual packaged games, but it still sold for a very reasonable £81.

What can there possibly be left to have in the Vectrex world? How about a brand new limited edition game? Alex Herbert decided to produce his own Vectrex game, a Defender clone called Protector, and released it just over two years ago. Three short weeks after its release, the entire stock had sold out making it an instant rarity and a sure-fire future collectable.

The Protector package itself came complete with the cartridge, screen overlay, instructions and a special presentation box. It was strictly limited to just 100 copies, and each Protector cartridge was individually numbered. Needless to say, a tidy sum was bid and the seller is now £165 better off. Very nice...

›CDTV proto

A machine that certainly requires a brief mention is the amazingly rare Commodore CDTV CR (CD500) which appeared on eBay Germany recently. Apparently, this prototype follow-up to the original CDTV (CD1000) was produced in such small numbers (primarily for testing and development) that only six machines are known to still exist. This might explain the breathtaking £1,497 it finally amassed for its proud seller. Thanks to *RG* reader Garry Wright for pointing this one out to us.

Retro Auction Watch >Extra!

>CPC Uncovered

Tucked away on eBay UK in April was a CPC464. Nothing special there, except that this one happened to be a grey-coloured prototype. Unassuming in appearance but rich in history, this CPC proved to be a very rare curio and an important part of Amstrad's past. Richard Burton takes up the story...

Not having heard of let alone seen this machine before, the slightly anonymous looking grey Amstrad CPC464 offered up more questions than answers. It was listed as a prototype of the more colourful official release, but what made this machine particularly intriguing was the fact that it featured *two* motherboards and a different processor.

So we decided to have a sniff around to try and find out more about this oddity. With the help and boundless knowledge of Cliff Lawson at Amstrad, a software engineer who joined the company in 1984 and who has had a hand in almost every computer the company has released, the story behind the grey CPC464 came together.



The super-rare Grey Arnold was sold with the original user manuals

We know that this anaemic-looking machine is a prototype, but what makes it so different from other CPC464s to warrant that label? Well, just about everything actually. As the incredibly alert will have spotted by now, the casing is light grey. This is what most obviously differentiates the prototype from the real production machine and these initial attempts at moulding the CPC casing are known as 'first shot' plastics. The injection moulder would make a tool for the casing and then run off some early samples in order to test the tool. Initially, the injection moulder would just be loaded with any plastic chips that happened to be to hand, so the casings were often cream or grey. Later, Amstrad would specify the exact livery and then buy in plastic chips to produce the required colour scheme.

Duel processor

So that's the outside dealt with, but what about the inside? Well, for starters it's got two motherboards, one stacked on top of the other. It was built in such a way that the upper board connected to the lower by the same 40 pins as the final chip would, so the lower board is effectively the final production version of the CPC motherboard and the upper board simulates the ULA (Uncommitted Logic Array) chip.

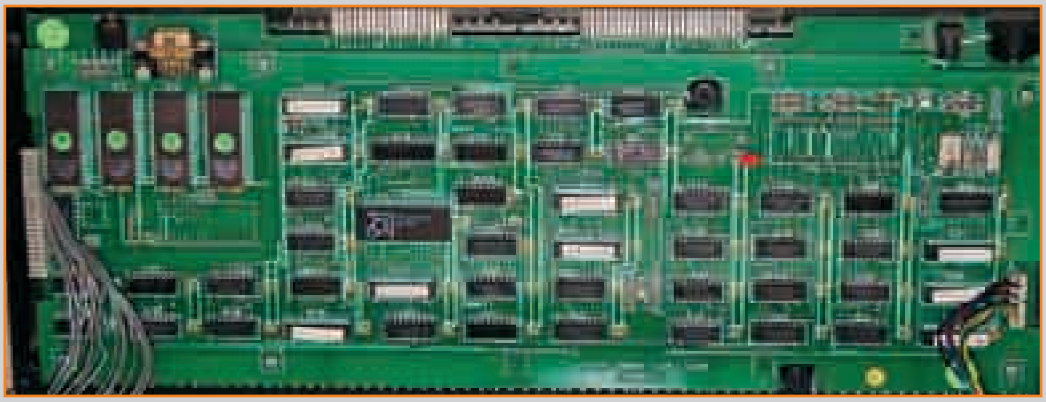
The auction listing also pointed towards a difference in processors. In the production version the processor was a Z80, whereas the prototype CPC features a 6502 processor.

When Amstrad set out to make a home computer it saw how successful the 6502-based Commodore 64 was and basically said "We want something like that." Sir Alan employed a couple of graduate engineers who set about designing the machine. The pair told the industrial designers what keys they thought they would need on the keyboard and, in parallel, the cabinet/keyboard was designed. This lead to the grey plastic casing.

The cabinet/keyboard was ready but the electronic/software designers were suffering delay after delay. Eventually the designers decided to call it a day and absconded, leaving Amstrad with a nicely tooled casing ready for production but no 6502-based PCB design or software to go into it.

By a rather roundabout route the technical director at Amstrad got in touch with a guy called Roland Perry, a Cambridge graduate who was apparently recommended as someone who "knows a bit about computer design." That turned out to be something of an understatement! Roland later became the namesake for a series of Amsoft's own software titles!

Amstrad asked Roland if he could co-ordinate the design of a computer to fill the void. Conveniently, he knew of a few other Cambridge graduates



Take a close look at the bottom of the motherboard – you can make out the Gate Array Simulator wording

who had gone on to form hardware and software companies – Mark Eric Jones of MEJ Electronics, and Richard Clayton and Chris Hall of Locomotive Software. He quickly got in contact with them.

Locomotive already had a BASIC interpreter and it mainly produced Z80-based word processing machines.

MEJ Electronics did the electronic design for Locomotive. Both companies told Roland Perry they could put together a BASIC home computer in six months, but only if it was a Z80 processor and not 6502-based, so they could re-use existing equipment.

So Amstrad agreed to ditch the 6502 design and have a Z80-based home computer instead. It's incredible to think that in just six short months MEJ designed the electronics and Locomotive honed the software that made the Amstrad CPC464 the machine we all know and love today.

As for the pre-existing keyboard, these were already tooled so Locomotive had to make the software work with the pre-defined layout, which is why that funny '|' key is used to access external commands – a little pointless, but it's a function nonetheless.

So what were the prototypes going to be used for? Development is the quick answer. The lead time on producing custom-masked chips, such as the ULA in the CPC, was many months, but Amstrad needed to have a supply of software titles available on the day of the CPC's launch. So, during development, just 50 prototypes were built with a Gate Array Simulator board fitted in place of the final ULA whilst it was still being manufactured.

Some of the prototypes were used internally at Amstrad for testing and development, but as soon as the firmware/BASIC was working, the machines were sent out to the main UK software houses. The idea was that they could port existing C64 and Spectrum titles to the CPC or cultivate new software to coincide with the official launch of the machine so that there would be an immediate software base from day one.

The developers were sworn to secrecy when given the prototype machines because the logic board effectively exposed the ULA design. The machines weren't supposed to be 'let out' because they could have been used to clone the CPC design – a nightmare scenario for Amstrad, which was attempting to break into the computer market for the first time. The ULA was always the clever bit of the Amstrad CPC and cloning it would have been a major concern back then.

Amstrad also ran a software testing competition for the new owners of the prototype CPCs. There was a £50 reward to anyone who could find a bug in Locomotive's firmware. No reward was ever paid out, which is a testament to the quality of Locomotive's software.

Lost and found

The prototype listed on eBay must have originally belonged to one of the software development houses. From there it somehow fell into the hands of one lucky seller, Nick Spencer.

Nick originally bought this machine for just £5. When the auction had finally run its course, the impressive final bid was for £620, which sent the machine winging its way to its new home in Madrid, Spain. The exact number of prototypes left in existence is unknown. Amstrad apparently purged its archives a while back and dumped several of the machines and the accompanying paperwork in a skip. Those lucky bin men...

"The exact number of prototypes left in existence is unknown. Amstrad apparently purged its archives a while back and dumped several of the machines and the accompanying paperwork in a skip"



The production line CPC464, with its familiar dark grey casing and coloured keys

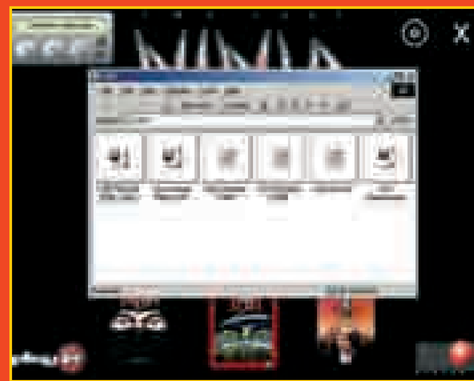


Retro Coverdisc

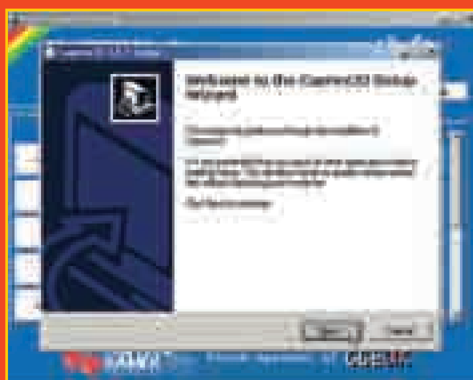
This month's coverdisc is a bit of a belter – quite literally. We've teamed up with Play It to offer you the complete Last Ninja trilogy, one of the best-loved series of games ever created. The CD contains the original 8-bit ROMs plus a selection of emulators you can use to run the games on your PC or Mac – loading instructions are included over the page. And to help you on the road to vengeance, we've included a guide to completing the first two stages of the classic original...



step 1 Place the coverdisc into your CD/DVD drive and it should start automatically. If not, select Run from the Start menu and enter *d:\retro.exe* (assuming that d: is the letter of your CD/DVD drive). After a brief pause, the Last Ninja menu will appear.



step 2 Click on one of the Last Ninja covers and the ROM files for that game will appear in a window on your desktop (turn over for a guide to running the emulators). If you wish to access the usual *RG* coverdisc browser, simply click the CD icon in the top right-hand corner.



step 3 Some of the programs are provided as executable files and these will run or install straight from the disc. If a setup wizard appears, simply follow the onscreen prompts then wait while the files are copied to your hard drive.



step 4 Many programs are stored in zipped archives, so you might need an archive manager like WinZip, which is under the Utilities browser tab. Extract all the files from the archive using the Extract feature and place them in an empty folder, then run the executable file.

Problem solving

If you're having a problem with a particular program on our coverdisc, please view the help file in the program for assistance. You might also consider visiting the website of the program author for further help. Otherwise, email **techsupport@livepublishing.co.uk**.

If you're having problems with the CD, first check it isn't dirty or scratched. CDs can be cleaned by holding them under the cold water tap and gently rubbing the silver side with a tissue. Dry it carefully with another tissue.

If the disc still doesn't work, it may be faulty. Faulty discs should be returned to Retro Gamer, Live Publishing International Ltd, Europa House, Adlington Park, Macclesfield, Cheshire, UK, SK10 4NP. We'll replace all genuinely faulty discs.

COVERDISC HELPLINE
01625 855051
techsupport@livepublishing.co.uk
(Monday-Friday 10am-4pm)
Helpline for coverdisc problems only

The Last Ninja Dojo

If you're having trouble making it out of The Wastelands, or you're hopelessly lost in The Wilderness, let *RG* guide you along the path to true enlightenment

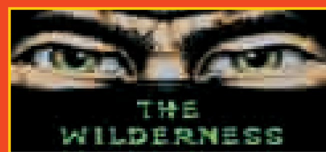
›The Wastelands



From the start, head south-east then south-west. You'll see a rock with a shining item on it – this is your **sword**, so grab it. Head south-west and jump across the river (if your emulator has a save state or snapshot option, you may want to save before you try). Once over the river, head south-west and follow the path until you find a dead warrior lying on the floor. Grab the **nunchaku** from his belt and head onwards. Ignore the **key** you see for now and keep going. You can use the Buddha shrine to see what item you need to grab next – unequip your weapons to kneel in front of it. After the shrine, grab the **pouch** (on the tree) and go back for the **key**. Head back in a south-westerly direction, then go north-west and grab the **smoke bombs** you find in the corner (you get three of these at a time). Now carry on and cross the swamp by jumping from log to log.

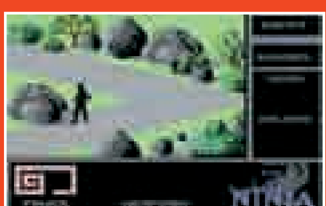
Head north-east, then go south-east after the shrine. Grab the **apple** on the tree (apples award extra lives), and head east and grab the **shuriken**. Return to the previous crossroads, then head north-east until you reach the dragon's lair. To pass this beast you need to knock it out with smoke bomb. Stand exactly where indicated in the screenshot below and throw a smoke bomb at the dragon. If you've done it correctly, he'll slump down and fall asleep, leaving you free to wander past and on to the next stage.

›The Wilderness

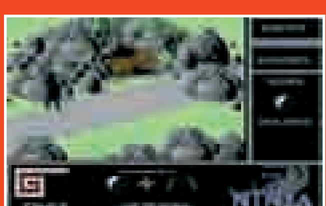


Don't worry about that locked door – you can't get through it. Instead, grab the **claw** from the right-hand lion statue and head south-east. Keep following the path until you reach a cliff wall. Equip the claw, unequip any weapons and climb up the wall by running into it. Continue and jump over the chasm, then grab the **apple** from the second cave. When you reach the brick wall, carefully climb down by walking backward (with the claw equipped) towards the right side of the wall (see screenshot below).

Now head north-east and cross the river (you know the drill). At the first crossroads head north-east, then go east at the following junction to grab the **glove** (which can be used to pick up the rose elsewhere in the level if you wish). Now keep going until you see a flashing item on a rock – touch this and you'll start to glow. This magic power is timed, so you need to be quick. Head north-west then west, and cross the river. Now go north-west to find another swamp. Jump across, then run north-east into the bamboo thicket and grab the staff (see the bottom screenshot below). Quickly head south-east and run past the fire-breathing statues (if you stop glowing, you'll need to go back and touch the magic item again). If you make it past, you'll move onto the next level – Palace Gardens. You're on your own now, young grasshopper…



Your trusty sword can be found atop this rock. Don't leave The Wastelands without it!



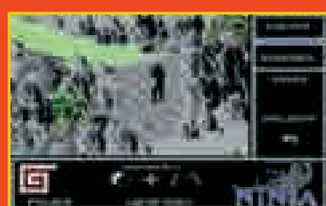
Stand in this exact position and throw a smoke bomb to make it past the dragon

›Kung fu fightin'

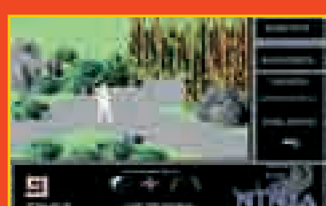
Combat in The Last Ninja may seem tough at first, and you'll take more damage than you give out to begin with. But with a little practice you'll soon start to figure out how to become a killer assassin. One of the key things to remember is the pros and cons of weapons. Some weapons are better against certain foes that others, especially when it comes to speed. For example, if your foe is using the staff, which is slow but powerful, then switch to the speedy nunhaku or sword and you'll drop him before he can attack. Bear in mind that this speed affects you too, so using a staff against a fast foe isn't a good idea.

›Ninja tunes

The Last Ninja coverdisc menu music was supplied by Chris Abbott of **www.C64audio.com**. Track 1 is an original SID recoding of The Wastelands, composed by Ben Daglish. Track 2 is an extended remix of the same track performed by Instant Remedy. Track 3 is a remix of Palace Gardens, composed by Anthony Lees and performed by Gareth Dolloway.

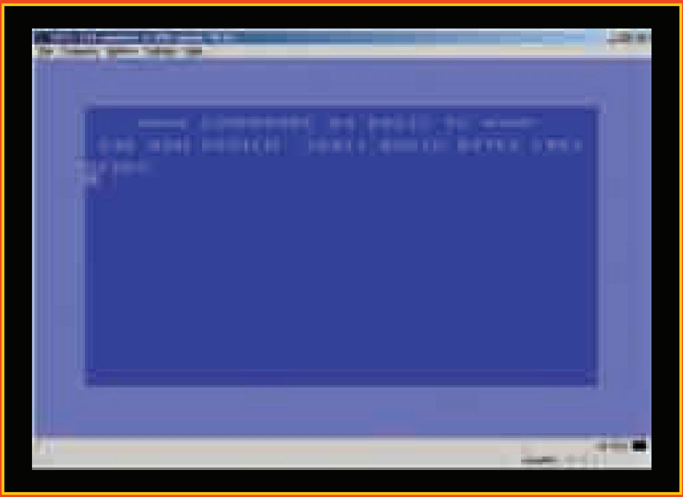


Climb down the wall as shown here to reach the ground safely

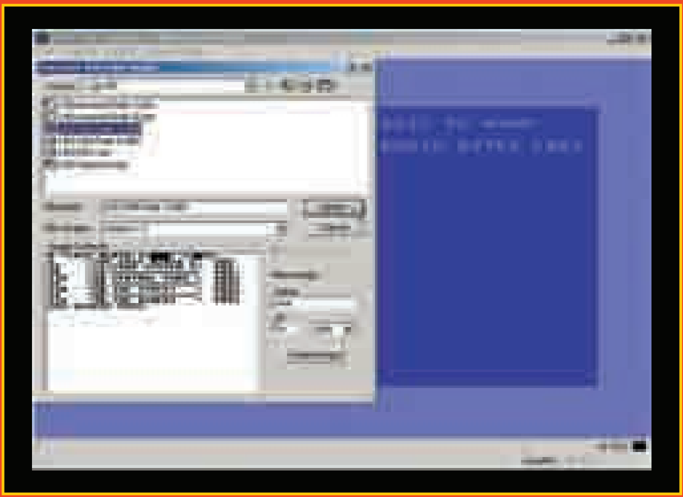


The staff is hidden in the bamboo thicket as shown here

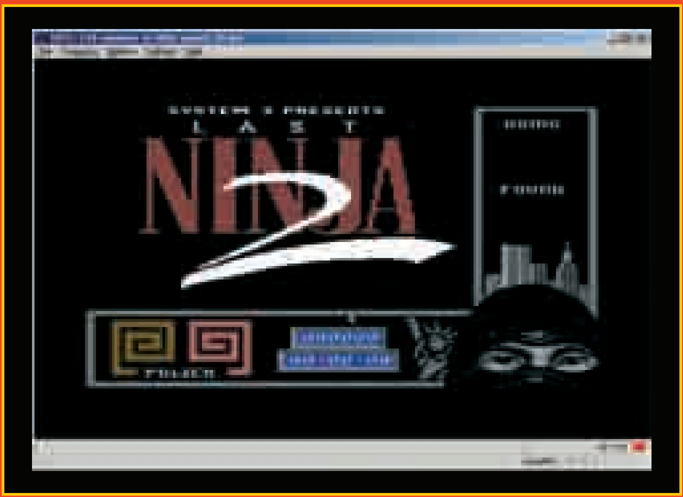
›Emulate the C64



step 1 Unzip the WinVICE archive to an empty folder on your desktop. The folder contains executable files for several Commodore machines. To emulate the Commodore 64, simply double-click x64.exe and wait for the Commodore BASIC screen to appear.

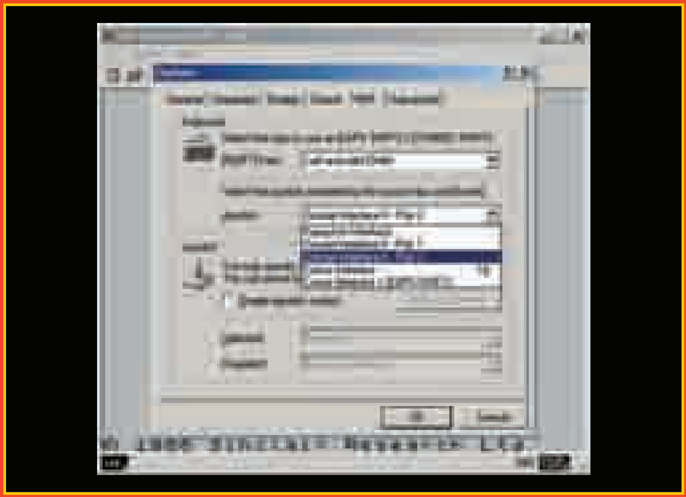


step 2 To load a game, select Autostart Disk/Tape Image from the File menu and select one of the C64 game files. The game will then load automatically. When you need to flip the disk, select File/ Attach Disk Image/ Drive 8 and select the second disk.



step 3 To run the emulator full-screen, first select Double Size from the Options menu. You can now toggle full-screen mode on and off by pressing Alt+D. If you have any trouble loading the games, make sure you select Options/ True Drive Emulation.

›Emulate the Spectrum



step 1 Run ZX32 from the coverdisc. Press F9 and select the Input tab. Here you can choose which joystick will be emulated using your PC cursor keys (and 0 to fire). Last Ninja 2 supports both Kempston Interface and Sinclair Interface so select either of these.

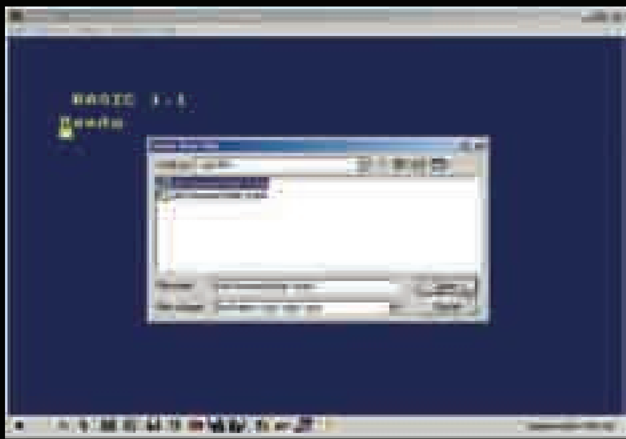


step 2 You're now ready to load the game. Select Open from the ZX menu and locate the Last Ninja 2 file from the coverdisc (LN2 Spectrum.tap). The game will load in a few seconds. Press the fire button to begin playing.

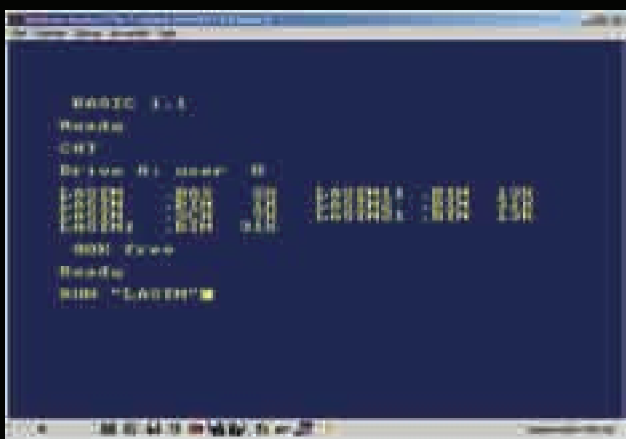


step 3 To toggle between windowed and full-screen mode, press F4. For a clearer full-screen display, you can remove the scan lines by pressing F9 and selecting the Display tab. Now change the Screen Drawing option to Normal.

›Emulate the Amstrad



step 1 Unzip WinAPE 32 into an empty folder and run WinAPE32.exe. When the Amstrad Plus screen appears, press 1 on the numeric keypad to select Amstrad BASIC. Press Ctrl+F1 and select LN2 Amstrad (Side 1).dsk from the coverdisc.



step 2 To load the game, type in *CAT* and press the Enter key to display the contents of the disk image. Type *RUN "LASTN"* then press Enter. The game will now load. You can toggle full-screen mode on and off by pressing F10.

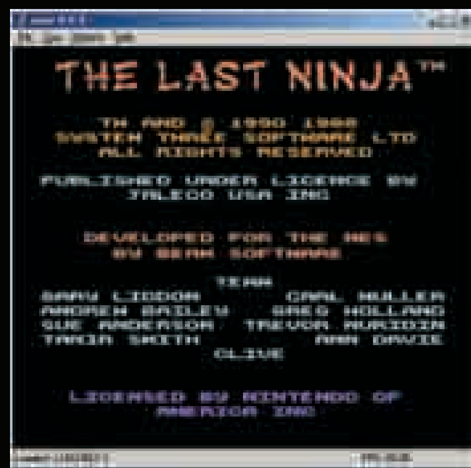


step 3 WinAPE 32 maps the movements of a CPC joystick to your PC's numeric pad cursor keys (with Num Lock off). Key 5 acts as the primary fire button, so after the game has loaded you'll need to press 5 on the numeric keypad to begin.

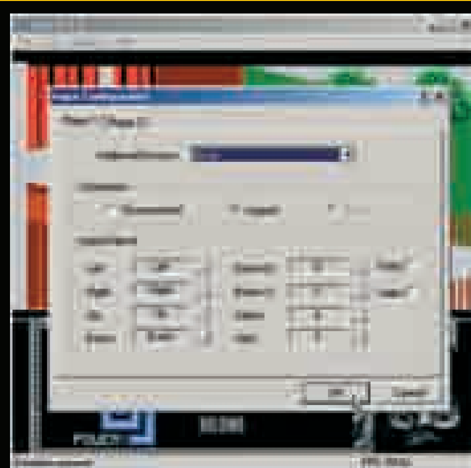
›Emulate the NES



step 1 Run the Jnes executable and choose a folder to unzip the files into. When the files have been copied across, run Jnes.exe to launch the emulator. To toggle full-screen mode on and off, press Alt+Enter. Select Options/ Video to change the full-screen resolution.



step 2 To load Last Ninja 2, click File/ Open and select LN2 NES.nes from the coverdisc. The game will now load instantly. You can pause emulation at any time by pressing F2, while F1 will close the emulator and return to Windows.



step 3 By default, Jnes maps the NES D-pad controller to the cursor keys, while button A is mapped to F and button B is mapped to D. A and S are Start and Select respectively. To change these keys, select Options/ Input.



Mini Retro Mart

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Atari Centipede (Atari 2600) and Road Riot 4WD (SNES) for sale – both games are unboxed and are £3.00 each. Please email necron13@hotmail.com for more details

Retro titles – Nintendo (PAL & NTSC), Sega, 3DO, Vextrex, Atari, Intellivision etc. Call Rob on 07973 552398

ToeJam & Earl (for UK Mega Drive) – boxed with instructions, good condition. £20 + £1 insured P&P. 07840 819253 or email garethcrowley@amiga.e7even.com for photo/details

Shining Force (for UK Mega Drive) – boxed with instructions, very good condition. £25 + £1 insured P&P. 07840 819253 or email garethcrowley@amiga.e7even.com for photo/details

Slimeworld (for JPN Mega Drive) – boxed with instructions, excellent condition. £3 + £1 insured P&P. 07840 819253 or email garethcrowley@amiga.e7even.com for photo/details

Valis 3 (for JPN Mega Drive) – boxed with instructions, excellent condition. £8 + £1 insured P&P. 07840 819253 or email for garethcrowley@amiga.e7even.com photo/details

Street Fighter birthday limited edition pads – £35 each plus £5 postage. Four in a set. PayPal and Nochex welcome. Email peter@jamesmerry.freeserve.co.uk

Sonic Tenth Anniversary birthday pack (Jap) – £25 with postage. PayPal and Nochex welcome. Email peter@jamesmerry.freeserve.co.uk

Sonic Pocket and Fatal Fury for Neo-Geo Pocket – £12.50 each with postage, unboxed in plastic case. PayPal and Nochex welcome. Email peter@jamesmerry.freeserve.co.uk

Retro Computing and Gaming – great items for sale at www.binarymemories.co.uk. Sega, Nintendo, PC, Amstrad, Amiga, retro computing items...

PENGO tabletop arcade game (Taito) – good condition and full working order, great retro gaming, very cool. £600. Contact Tim on 01442268819

Astro Boy GameBoy limited edition! – translucent red GameBoy with design of Osamu Tezuka's greatest characters! Rare! Contact freshnessben@yahoo.co.uk for price and pictures

Wanted

The Shadow SNES game wanted – will pay reasonable price, preferably with instructions. Doesn't matter if it's un-boxed. Email lukelangley1@msn.com

Three Game Gear games wanted – Sonic Blast, Dr Robotnik's Bean Mean Machine, and Tails Adventure. Email radiosonicrules@hotmail.co.uk

Misc

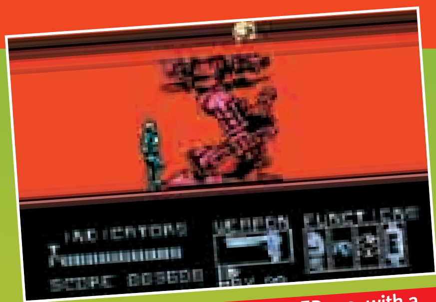
I've been making games in a retro style for the last month – download the results at www.whatwecreate.co.uk

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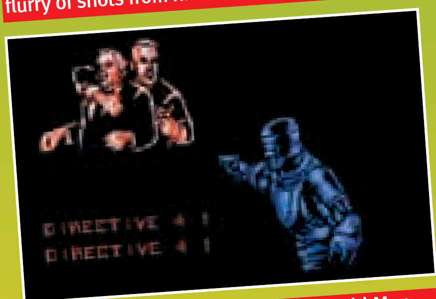
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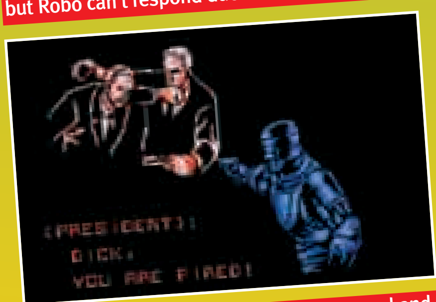
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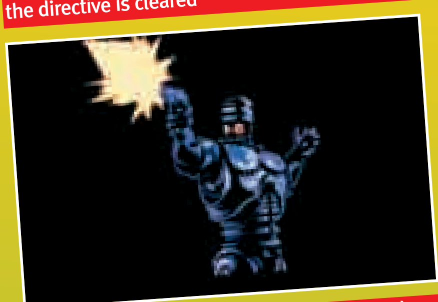
Robocop defeats the final boss, ED209, with a flurry of shots from his Cobra gun



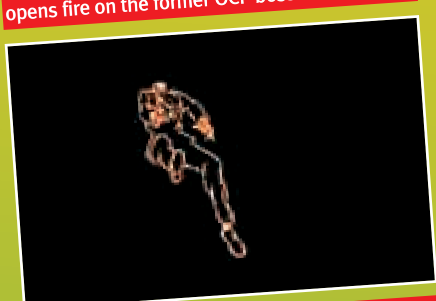
Cut to OCP HQ. Dick Jones grabs the Old Man, but Robo can't respond due to 'Directive 4'



The Old Man sacks his second in command and the directive is cleared



Hyped up on baby food, Robo takes aim and opens fire on the former OCP boss



The blast sends Jones flying backwards. Game over – thank you for your co-operation



Unlike the rousing climax to the movie, Robocop on home computers spluttered out, offering little more than a cursory congratulations message. But on Data East's otherwise lacklustre NES version, there was a fine animated ending